THE CHEMIST AND DRUGGIST

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Editorial Notes.

HOWEVER disappointed the public may have been at the collapse of the compulsory Poisons Regulation scheme, which, according to some of the medical organs has long been one of their cherished hopes, it is evident that the calamity has been borne with a stoical fortitude. We have heard of no indignation meetings, nor probably has any chemist throughout the land had a *bonâ fide* complaint made to him on the subject. Further still, we doubt whether any man, woman, or child, unconnected with the medical profession, or the Privy Council, and outside the trade, has cared or known enough about poisons regulations to have introduced the subject into his or her conversation since the Pharmaceutical Council decided to "break faith" with the legislature. The *Standard* of April 17th, and the *Pall-Mall Gazette* of May 4th, contained articles commenting severely on the conduct of the Council and of the trade. Let us see for one moment what is proved by the insertion of these articles. It is quite evident that they were the result of "communications," and not to mince the matter it is extremely probable that the "communications" came from the Medical Department of the Privy Council. If this is correct, we may certainly suppose that "communications" were also made to the other London daily papers. Mr. Simon, it is said, has some influence in other matters in which he is concerned with the editorial staff of the *Times*. Of course he knows that the *Times* would have had greater influence than the *Standard*. Why, then, did he not get his article inserted in the former paper? The answer is obvious and particularly damaging. Again, although evidently written for a leader, the editor of the *Standard* did not let his good nature run so far away with his judgment as to accord to such a one-sided statement the honour of a central position, but hid the article away in a corner of the "largest daily paper in the world." The *Pall-Mall Gazette* takes a pride in being peculiar in its notions. It sympathises with "gentlemen's" rights, and it manifests a wholesome sort of respect for the working classes; but the great body of the middle-class Englishmen between these two sections, the tradespeople in fact, are to the scornful writers of the *Pall-Mall*, simply ridiculous. After a careless and inaccurate statement of the origin of these regulations, we are told that "violent opposition has been raised 'in the trade' to the adoption of any compulsory regulations, and at the last meeting of the Council of the Pharmaceutical Society, it was resolved that the rules drawn up by the Council to be submitted to the annual meeting should be proposed merely as recommendations. In other words, the Pharmaceutical Society hereby shows its intention of breaking faith with Parliament and the public. The regulations proposed are the keeping of poisons in a separate cupboard, or tied over in a particular way, or in peculiar bottles. It will be for the Privy Council to step in and take the necessary steps for enforcing the adoption of those regulations which the public and Parliament have a right to expect."

These two papers, then, are the only organs of public opinion of any position, as far as we know, that have commented on the rejection of the compulsory system. And, circumstances considered, it does not quite seem as if this proves the report of public alarm. Mr. Simon is at present full of work occasioned by the vaccination business. When he gets a little spare time he will doubtless come back to the druggists. The Government will not have forgotten the matchmakers and the publicans, and will probably decline to interfere with a third trade for the present. If, however, a bill should be brought in, it must in all reason include the medical profession, and then the majority of those gentlemen will probably as in former times forget their anxiety for the public welfare, and combine with the druggists to oppose a system which would affect their occupation far more than it could do the business of a chemist and druggist.

There is good reason to anticipate, judging by the unanimous expression of approval with which the best authorities have greeted Dr. Attfield's scheme of nomenclature, which we published in our last number, that it will be the accepted system whenever a new British Pharmacopœia is brought out. The committee engaged on the decennial Pharmacopœia of the United States will doubtless give it their consideration. A new Dutch Pharmacopœia is also at this time in preparation, and it will be a great advantage if the medico-chemical nomenclature of all countries having intercommunication can harmonise, particularly if the one system can possess, as this seems to do, a prospect of considerable permanency. We publish in another part of this journal a few additional remarks by the author, which will interest those chemists who followed the discussion reported in our last.

The circular issued by the Metropolitan and Manchester Chemists' Defence Association, recommending members of the Pharmaceutical Society to vote for certain gentlemen for the Council, at the forthcoming election, has called forth a letter from Mr. Balkwill, of Plymouth, expressing strong objection to such a proceeding, as a matter of principle. We should regard Mr. Balkwill's letter as a curiosity, if we were not aware that he has expressed views which are held by a few other members of the Pharmaceutical Society as well as himself. This clique regards the election of the Council as something too sacred for general criticism, and any agitation of the trade which does not proceed from Bloomsbury-square itself is almost sure to be characterised as impertinent. Such notions as Mr. Balkwill puts forward would make the election of the Council a most perfect farce. It is said that many members used to make a point of voting for the first fourteen on the list; another balancing matters by giving their votes to the last fourteen. A more intelligent system than this is surely desirable, and it is likely to be obtained, if gentlemen will manifest whatever interest they may feel in a legitimate way, and use such influence as they may possess as freely as possible. It is curious to observe that the advocates of conservative respectability seem to have secured a monopoly of the use of unpolite epithets.

Mr. Brough's many friends among the chemists and druggists of the United Kingdom will read the paragraph which we print below with lively feelings of pleasure. It is extracted from the report of the Committee of Management of the London Institution for 1871, and is signed by the President, Thomas Baring, Esq., M.P., F.R.S.:—

"The first and most important duty undertaken by the Board of Management in the past year was the appointment of a Principal Librarian in the place of the late E. Brayley, F.R.S., whose lamented decease formed the subject of the opening paragraph in the Report for 1870. Applications for the vacant office were received from many gentlemen of literary and scientific eminence, and the Board, after careful consideration of the respective claims of no fewer than thirty-two candidates, elected Mr. John Cargill Brough, F.C.S., who was highly recommended by many of the leading scientific men of the day. When the apartments allotted to the Librarian were ready for occupation, Mr. Brough entered them, and the domestic superintendence of the establishment advocated in paragraph 16 of the last Report has thus been obtained. The Managers feel that their choice has been a happy one, for although Mr. Brough's physical powers have been impaired by ill-health, his energy and organizing talent have been manifested in many ways. He has voluntarily extended the sphere of his duties by editing the *Journal of the London Institution*, which was started at his suggestion in January, and the Proprietors generally will doubtless admit that this valuable record and programme of proceedings affords significant evidence of Mr. Brough's anxiety to promote the useful work now being done by the Institution."

We anticipate with much pleasure a second edition of the treat which the Pharmaceutical Society gave us last year at the South Kensington Museum. The *conversazione* which was such a complete success then, will be held in the same place on the evening of May 17th this year. Every member of the Society is entitled to receive, on application, an admission ticket for himself *and a lady;* associates and apprentices may obtain tickets for themselves *only.* The distinction, regarded as an educational spur, is a most artistic touch on the part of the Council.

The International Exhibition is certain to take rank as one of the established attractions of the London season. Whether the annual repetition of the experiment will in time wear out the perseverance of exhibitors, or tire the welcome of sightseers, has yet to be proved. Her Majesty's Commissioners have provided against such a failure as far as possible by arranging for a different kind of display each year for several years to come. This is a particularly advantageous arrangement both to the exhibitors and to that portion of the visitors who go to the collection because they are technically interested. But the ordinary sightseer is likely to vote a journey round the Exhibition buildings dull, and the utter absence of any *coup d'œil* such as our former exhibitions presented, will strike him at the first view as a most unfavourable contrast. The absence of architectural effect in a permanent building of this character is, we think, much to be regretted. Something of that is wanted, and it is rather oppressively felt on this occasion, to relieve the massive shoppiness of the collection, which is almost obtrusively thrust upon us. In spite of defects, however, the Exhibition will, we doubt not, achieve a real success, and prove extremely useful. Most wisely and opportunely, the commissioners have given some considerable space to educational subjects. These will attract the attention of the many thousands who have during the past year or two awoke to a sense of the importance and the need of an improved system of national education in England. A good selection of scientific inventions has been made by the examiners from a vast mass submitted to them; and the displays of pottery and machinery in motion give variety and life to the whole. The picture gallery, though not large, is supplied with many valuable works of art, and the interior of the Albert Hall, which breaks the journey round the corridors forming the Exhibition proper, is a most magnificent view. Although our own department of science and commerce is but slightly represented in this collection, we cannot be uninterested in a social movement of this character, and we may have occasion to make further allusion to some of the special exhibits. Messrs. Calvert and Co., we notice, are represented among scientific inventions, and the British Seaweed Company has taken advantage of a class of marine inventions to place a collection of its chemicals on view. With these few general impressions of an early visit, made before the Exhibition was entirely complete, we must close our first notice.

It is reported that a new Petroleum Bill has been drafted on Government authority, and that it will be introduced *viâ* the House of Lords. The *Oil Trade Review* hints that some important changes are intended to be made in the mode of testing petroleum and coal oils in future, so as to render the determination of the flashing-point as uniform as possible, and thus avoid the unseemly disputes constantly occurring before the judicial bench. The schedule of the Act directs the testing to be made in a closed vessel; the flashing-point to be 85° Fahr., instead of 100°; and in place of a lamp being used to heat the cold water, as at present, the water itself is to be put into the outer vessel at 90° Fahr., and the cap of the oil-cup removed occasionally as the thermometer immersed in the oil approaches 85°, the flashing point from the orifice of the closed vessel at 85° representing a flashing-point of 100° in an open vessel. The Metropolitan Board of Works, it is said, has suggested these alterations. It is not unlikely that the new Act will also contain provisions similar to those included in the Earl of Morley's bill, introduced into the House of Lords last year, but withdrawn by the Government in consequence of want of time to pass it. That bill was intended to remedy an acknowledged absurdity of the Act of 1868. It would have exempted from the provisions of the Petroleum Act the sale of such articles as benzine collas, etc., if supplied and kept in stock only in bottles containing not more than half-a-pint. The absurdity of preventing this trade is just as great now as it was then, and we shall ask the authors of the bill to embody such a clause in whatever new proposal they may bring forward.

We have the pleasure to announce that we have arranged terms with the publishers of the *Boston* (U.S.) *Journal of Chemistry* for a mutual agency. We shall therefore henceforth be represented at their office, and on our side we shall be glad to receive subscriptions for our very interesting contemporary. An advertisement gives fuller particulars of the range of subjects on which it treats, as well as price and other details. We have now representatives in New York, Philadelphia, Boston, and San Francisco, and by the aid of these we have much pleasure in finding that our list of subscribers in the United States has very considerably extended.

Nitro-glycerine does not seem to become any more civilized as it mixes in scientific society. We read in a German publication an extraordinary account of the explosion of only ten drops of this substance, which a pupil in a laboratory had put into a small cast-iron saucepan, and heated with a Bunsen gas-flame. The effect of the explosion was that the forty-six panes of glass of the windows of the laboratory were smashed to atoms, the saucepan was hurled through a brick wall, the stout iron stand on which the vessel had been placed was partly split, partly spirally twisted, and the tube of the Bunsen burner was split and flattened outwards. Fortunately, none of the three persons present in the laboratory at the time were hurt. When nitro-glycerine is caused to fall drop by drop on a thoroughly red-hot iron plate, it burns off as gunpowder would do under the same conditions; but if the iron is not red-hot, but yet hot enough to cause the nitro-glycerine to boil suddenly, an explosion takes place.

The editor of the *Eclectic Medical Journal* (Cincinnati) has lost some of his reverence for University degrees; not altogether without reason, as the following communication received by him will show:—

"Risin Sun, March the 14, 1871.

"Proff. Scudder—The fust of Jany I sent to be published in your exlent Jurnal a article called by me Case in Practiss witch I thought would prove interesting to the perfeshun. I have wated anxushly to see it in print and hope there will be no further delay.

"P S Sine my name in full with the M D and the L L D witch is evidence of my standin

"The L L D degree was obtained in Philadelphy where I have many strong friends.

"Respectly,
"Dr. O G Wiggins M D L L D"

The Adulteration of Food, Drink, and Drugs Bill, introduced by Mr. P. H. Muntz, was set down for committee on the 25th of April; but the House being counted out before the bill was called, the date was postponed until May 23rd. Sir Charles Adderley has given notice of his intention to oppose the motion for going into committee. We seem to have judged Mr. Muntz's bill rather too hastily. Its second clause is rather queerly worded, but it does not carry exactly the construction which we placed upon it. Our only excuse is a parody of the oldest on record, that the *Pharmaceutical Journal* beguiled us. The following letter from the author of the bill will be satisfactory to most chemists:—

"28th April, 1871.

"Sir,—I think your friends have been misinformed on the subject of the Adulteration Bill. The object is merely to enable the magistrates to inflict a higher penalty than £5 on those who *wilfully* mix injurious or even poisonous ingredients in food or drugs. I should have thought that every respectable druggist and every honest man would have supported such a measure. Imperfect it is; but it is as much as could be effected for the present.

Yours faithfully,
"The Editor of the Chemist and Druggist. P. H. Muntz."

On again reading the second clause of the bill we find, amid some obscurity, an evident distinction made between articles of food or drink and drugs, but it would appear that the penalty only attaches to a druggist when he expressly sells adulterated drugs as pure and unadulterated. This is rather curious; but it is probable that if the bill should live to get through committee it will come out dressed in a little clearer English. The following is the wording to which we have referred:—

2. Every person who shall sell any article of food or drink with which to the knowledge of such person any ingredient or material injurious to the health of persons eating or drinking such article has been mixed, and every person who shall sell as pure and unadulterated any article of food or drink, or any drug which is adulterated or not pure, shall for every such offence, etc.

Although a shade of unpopularity hangs over Her Majesty's Government at this moment, it cannot be denied that during its tenure of office it has grappled honestly and boldly with many serious grievances. One of its aims was to serve the commercial interests of this country by a more satisfactory adjustment of the laws concerning bankruptcy, and as a consequence an Act was passed which seemed to combine the requisite severity to careless and fraudulent debtors with a more gentle treatment of purely unfortunate tradesmen and others. The Act is so voluminous and so complicated that a special education almost is necessary to comprehend it; but a worse result of such elaborate legislation is almost invariably that the popular possibility of driving a coach and four through the provisions of the Act is but too likely to be verified. With regard to this case especially, it may be said that it is too early yet to express a final opinion, but we may certainly confess that, as far as we have proceeded hitherto, we have been greatly disappointed with its working. Theoretically it promised well, but practically there is no improvement. The indefinite terror which, during the last few months of 1869, smote debtors and reckless traders of all classes, has quite passed away, and they now pursue their old practices with as much alacrity and impunity as ever. Every lawyer in the land, as well as every man of commercial experience, will support us in the statement that a creditor is no more secure under the new law than under the former system. The abolition of imprisonment for debt works as a direct favour to unprincipled men; while the 10s. in the pound which, according to the theory of the law, must be paid before a debtor can claim his discharge, it is either impossible to obtain, or if not impossible, is far too costly in time and trouble. Is there any remedy for this state of things? None, until our legislators are prepared to tear out the evil by the roots. It is still, as it ever has been, perfectly legal for any man to obtain goods without any reasonable or remote prospect of being able to pay for them as long as he can find any dealer who will trust him In many cases this means simply obtaining goods under false pretences, and so long as the law does not regard such a proceeding as criminal, so long will open and audacious robbery proceed under the title of "trade," and dishonest dealers will pick their way with the utmost ease, for it soon becomes a beaten track, through the dirty law-courts, which seem to exist mainly as a house of refuge for fifth-rate attorneys and an earthly purgatory for innocent and deceived creditors.

THE *Medical Times and Gazette* favours the work in which Mr. Ince has been for some time past engaged, namely, the collection and distribution of assortments of autograph prescriptions for the purposes of instruction. It will be remembered that in certain medical quarters a slight objection had been raised, that this course was something approaching a breach of confidence. The *Medical Times* does not so regard it. Our contemporary says:—" A great deal of trash has been written with respect to the publication by Mr. Ince of the prescriptions of medical practitioners. Those prescriptions were given to the alumni of the Pharmaceutical Society with the laudable view of teaching them the duties which they will be called upon to perform. It is absurd to say that a 'breach of confidence' is involved in such a publication. Beesley's 'Book of Prescriptions' would be liable to the same objection. Anything and everything which would fetter, or attempt to fetter, the progress of knowledge, or to shroud the conduct of medical practitioners in mystery, should be urgently condemned. If we are to retain our position with the public, it must be by openness and candour in all our transactions with them; the 'greatest good of the greatest number' should be, as it has been, emphatically our motto—it is for the charlatan to 'pretend.' The legitimate practitioner should rely upon truth and reality; the greatest among us owe their fame to the simplicity of their treatment of disease. May it ever be so."

MR. BROUGHTON, the Government Quinologist at Ootacamund, has succeeded in extracting carbolic acid from the *Andromeda leschenaultii*, a common plant on the Neilgherries. The acid thus obtained differs in some respects from that procured from coal tar. It is less deliquescent, and far more pure, and would therefore be an admirable substitute for carbolic acid in delicate cases. With regard to the cost of production, it is difficult at present to speak with certainty, for although the plant is inexhaustible, the process of extraction is rather costly. The Madras Government considers that Mr. Broughton's discovery is one of importance, and that it should be made known in England as well as in India.

THE PHARMACEUTICAL COUNCIL.

THE occurrences of the past few months in connection with the Poisons Regulations struggle has invested the election of the Pharmaceutical Council this year with an unusual interest. However it may be glossed over, there can be no doubt that we have lately witnessed the discussion of a question involving a vital principle, respecting which the council, as a body, has been on one side, and the trade, as a body, has ranged itself in opposition. A divergence of opinion like this between a constituency and its representatives is an occurrence which must be looked for occasionally wherever the principle of representative government obtains; and as an incident, or an accident, is not altogether an unmixed evil. It stirs up the life, energy, and interest of the constituency on the one hand, and on the other reminds the representatives of their rightful position. The periodical recurrence of general elections is the safety-valve provided in the electoral system for the termination of such disputes, the perpetuation of which would result in, or rather would be, pure despotism. The election of a new council, therefore, following immediately the late dispute, and possibly occurring at almost the commencement of a campaign in which it will be necessary to defend our present position against influential adversaries, naturally excites the interest of the whole trade—the members of the Pharmaceutical Society not being by any means exclusively concerned. Such a state of affairs fully warrants on our part a somewhat close criticism of the claims of the various candidates from whom fourteen councillors are to be chosen. It need hardly be added that our remarks will not by any means be founded on personal preferences, but, as far as they are personal at all, will only indicate what we may happen to consider qualifications or disqualifications for this particular office on this particular occasion.

There are several points in our charter to which we attach varying degrees of importance. First of all, we feel bound to recognise the force of the argument for a fair number of metropolitan members on the council, seeing that by them the departmental work must be done almost entirely.

Out of the twenty-one councillors we think it might fairly be accepted as a rule that ten from London would not be too large a proportion. But this year a slight allowance must be made. The late defeat of the Council was officially declared to have been partly due to the power of the country members, and therefore on the principle that "the loser pays," it does not seem unfair that London should this year accept a smaller proportion than that which we have assigned to it, and also, and as a consequence, that London councillors should for one twelvemonth bear a little more even than their usual share of the work. It has happened, too, curiously enough, that the seven old councillors who are left in by ballot are all country members, and further that the choice of metropolitan candidates is also somewhat contracted. This combination of causes leads us to fix as our first principle, that of the fourteen to be elected seven should be metropolitan and seven provincial members.

Having settled our plans so far, we should propose to select for our legislators gentlemen with business talents and catholic views; men whom we could thoroughly rely on to defend, maintain, and promote the interests of the trade in any future communication or battles with Parliament, Privy Council, or any other power. And above all, we certainly would prefer to see such men elected as would be above the narrow policy of aiming at the financial success of the Pharmaceutical Society, the *Pharmaceutical Journal*, and whatever other Pharmaceutical speculations may be engaged in, in disregard of, or even in opposition to the interests of the much larger number of chemists and druggists, over whom their official jurisdiction equally extends, and who have as much right as any particular section to claim the attention and protection of the government-constituted council. And we believe there is quite enough liberal and broad-minded feeling among the members of the Society to support us heartily in this desire. Given such men as we have indicated, and we would not bind them down to any particular pledge, but trust them to do their best for us during their term of office.

But there is one question on which it is quite time that the Council should be in accord with the great majority of the members who are represented by them. Whatever they were formerly, the Council meetings ought no longer to partake of the character of a family party, nor of a consultation between the partners in a firm. And yet in one of these two lights some of them seem still to regard their position. The proposal that reporters should be admitted to the meetings of the Council, seems to have almost paralysed some of the members by its audacity when it was first brought forward. And yet on what ground was the demand resisted? Was there anything like a decent argument presented, or was there any defence whatever made, except such as could only be construed in the manner we have indicated? There can be no reason whatever why twenty-one chemists and druggists should not meet together once a month and discuss in perfect privacy any subject which may happen to interest them. But the case is very different when these twenty-one are elected as the representatives of a whole trade, such representatives being legally invested with authority to decide questions which may affect every member of the trade. Surely anywhere out of Turkey it might be expected that the Council, being composed of honourable and conscientious men, would be thankful for such publicity as would justify their motives if not their action.

On the next Council we think it almost certain that there will be a majority favourable to the admission of reporters. But we think it would be decidedly preferable that at the annual meeting the desire should be so unequivocally expressed that the revolution could no longer be delayed. We have been constrained to advocate this measure simply as a matter of right towards the Society and the trade. The reporting of the meetings could be of no service to us unless our readers were interested in the subjects discussed; but the trade is interested, and others can see that the Council is interested also. The recent quarrels would probably have never taken place if the Council had been, or at least had appeared, less sulky. The bitterness of the opposition to the Poisons Regulations was intensified, if not occasioned, by the apparent haughty *nonchalance* of those who, as many of the trade almost naturally supposed, having no satisfactory proof to the contrary, had expressly invented them for their annoyance and injury.

Regarding this question of the admission of reporters as to some extent a test of modern and ancient ideas concerning the government of the trade, we lately addressed an inquiry to all the gentlemen who had accepted the nomination on this point. We have a number of most courteous replies before us, and though some, as we anticipated, decline to give us a specific answer, we are tolerably well posted regarding the views of all. The seven who remain on the Council are Messrs. A. Bottle, Dover; G. Edwards, Dartford; T. B. Groves, Weymouth; R. Reynolds, Leeds; W. D. Savage, Brighton; W. W. Stoddart, Bristol; F. Sutton, Norwich. Of these the first three may be expected to oppose, and the next three to favour open Council meetings; Mr. Sutton is doubtful. The following twenty-two names indicate the gentlemen who have accepted the nominations for the fourteen vacancies:—

London.—Messrs. S. C. Betty, J. Carr, J. R. Collins, T. Greenish, A. T. Haselden, T. H. Hills, J. Owen, G. W. Sandford, J. Wade, J. Williams, G. Yarde.

Provincial.—Messrs. J. Abraham, Liverpool; J. H. Atherton, Nottingham; W. S. Brown, Manchester; G. Cooper, Exeter; G. Dymond, Birmingham; D. Frazer, Glasgow; J. Mackay, Edinburgh; J. Shaw, Liverpool; E. Smith, Torquay; W. Stott, Sowerby-bridge; G. S. Woolley, Manchester.

We have thus for choice eleven London and eleven provincial candidates. The problem is to leave out from each batch the four least in harmony with the present temper of the trade. Our task as far as London is concerned is easy. Mr. Wade has signified his intention to withdraw, which we much regret. Of the rest we should first strike out Mr. Yarde, for the reason that we know nothing of his views on any question of pharmaceutical politics. Mr. Collins, too, is more useful outside than in, his criticisms being too profuse and wordy to admit of the easy progress of business; we are unaware, too, what is the tendency of his opinions. As the third victim we select Mr. Carr. He was chosen by the Council to fill up the vacancy occasioned by Mr. Hanbury's retirement, and though he may probably have filled the post very ably, the fact has not been apparent to the trade in consequence of the perfect privacy of the meetings. Mr. Carr is "decidedly opposed" to our views in this respect. Of the seven remaining we anticipate that Messrs. Sandford, Hills, and Haselden would vote against the admission of reporters, while Messrs. Betty, Owen, and Williams might be expected to advocate the more open policy. Mr. Greenish is doubtful, but he is on most questions abreast with the leaders, and we fully expect to find him vote with the latter three. Mr. Wade would undoubtedly support the admission of reporters; but, as we intimated, it is likely he will decline to serve.

With regard to the country representatives, selection is more difficult. To distribute seven seats over the whole of Great Britain and satisfy each district, would try the genius of Archimedes. Manchester asks again for two seats, a claim which we could not support if it were not that Messrs. Brown and Woolley by their action respecting the Poisons Regulations had earned the gratitude of the trade. They alone took a really broad view of the duty of the Council, as far as that duty extended to the outsiders, and for that reason we hope to see them again returned, as last year, at the head of the poll. We fully hope to see Mr. Dymond returned again. Without him the important Midland Counties would be entirely unrepresented, and his staunch advocacy of open Council meetings during the past two sessions leads us to hope that he would advance in the same direction again. We have a strong desire to see Mr. Frazer returned. Glasgow certainly has a claim to one seat, especially as the trade there suffers from an exceptional grievance, namely, the large preponderance of medical druggists, and it will be well for the Council to be constantly reminded of this fact, by the presence of a gentleman who will thoroughly represent the whole of the *bonâ fide* druggists of that great city. We have no wish at all that the election of Mr. Frazer should displace Mr. Mackay. No more able man sits at the Council-table than he, and none has to a greater degree the power of winning the confidence of those whom he addresses or represents; besides, Scotland is quite important enough to have two voices out of the twenty-one. Liverpool ought, of course, to have a member. Local popularity will probably decide whether it shall be Mr. Abraham or Mr. Shaw. The former has, undoubtedly, the most extensive reputation, but the latter is thoroughly well known and highly respected in the neighbourhood. We presume that Mr. Shaw has been put forward by the Manchester party, as he was one of the leading opponents of the Poisons Regulations in Liverpool, while Mr. Abraham, as is well known, consistently advocated them. Mr. Shaw was formerly on the Edinburgh Board of Examiners, and he has been president, and for many years treasurer of the Liverpool Chemists' Association. We shall not decide between these gentlemen. Two first-rate men are in the field from the West. We should like to advocate the claims of both, but arithmetic will not allow it. Mr. Cooper is a thorough business man, and is perhaps the best known chemist in the far western counties. Mr. Smith, of Torquay, has a pharmaceutical reputation which makes him most eligible for election. We hope to vote for these gentlemen yet; but for this year we pass them by for this reason only, namely, that there are already two representatives of the West of England on the Council, and considering that as a body, the chemists of that part of England have been perhaps the most apathetic hitherto, we can hardly think the time has come for giving a preponderance of voice in the Council to representatives of that district. We reject them for mathematical reasons only; but their views are so thoroughly in accordance with our own, especially as regards the Council meetings, that we shall almost rejoice to find our selection reversed in either or even both of these instances. There remain now Mr. Atherton and Mr. Stott. We should certainly not be sorry to see a gentleman from a rural district on the Council. Fashionable watering-places and large towns have hitherto absorbed all the seats. But we are not acquainted with Mr. Stott, while Mr. Atherton and his opinions have been before us for a long time, and as we have reason to believe that the latter gentleman would now vote "right," on the question which we have here made most prominent, we make up our perfect seven with him. We may add that we have good reason to believe that all the provincial nominees would be favourable to more open Council-meetings than we have at present. We should expect to see Messrs. Abraham and Mackay vote against a direct motion for the admission of reporters, but we believe they both recognise the weakness of their position, and we do not think that on this point either would resist the generally expressed wish of their constituents. We should have preferred to have selected all our fourteen from the supporters of such a motion; but this would have involved a still smaller proportion of metropolitan members, and it would be unreasonable to expect the business of the Society, so divided into departments as it is, to be properly conducted with fewer working members (we mean no disparagement to the rest) than the number we have indicated.

We have no wish that our remarks should exercise much influence on the election. They will come too late for that. But we do hope that they will arouse a demand for the publication of the deliberations of the Council, where such a demand has not yet been awakened, and thus strengthen the hands of those who feel this to be one of the great wants of the Society. Many besides ourselves are quite confident that what the Council will lose in dignity it would assuredly gain in popularity.

The Metropolitan Chemists' Defence Association has issued the following circular to members of the Pharmaceutical Society:—

"63, Lupus-street, Belgravia South.

"Dear Sir,—The London Committee, acting in concert with the Manchester Association, has been deeply sensible of the responsibility which rests upon it in venturing to select from among the candidates nominated for election, a list of gentlemen for the approval and support of the members of the Society, lest in its efforts to secure the return of those pledged to oppose the obnoxious regulations, it should lose sight of and sacrifice the general interests of the trade.

"Numerous consultations have therefore been held before definitely deciding upon the selection; and in now submitting the result of those deliberations to your support, the Committee feels assured that whilst the list, *if carried in its entirety*, will secure to the next Council a considerable preponderance of supporters of its views, it will at the same time retain the valuable services of gentlemen, whose experience and judgment will be most valuable in carrying out the numerous details of pharmaceutical legislation; and who have lately shown their willingness to waive their private opinion, in deference to the generally expressed feeling of the trade.

"The Committee therefore, with the utmost confidence, commends the complete list of fourteen, given below, to your support; and solicits your kind co-operation in thus securing the return of a true representative body of councillors.

"I am, Sir, yours obediently,
"Edwin B. Vizer, Hon. Sec.

"May 1st, 1871.

"Messrs. Atherton, Nottingham; Betty, Camden-town, London; Brown, Manchester; Carr, London; Frazer, Glasgow; Greenish, London; Haselden, London; Hills, London; Mackay, Edinburgh; Owen, London; Shaw, Liverpool; Smith, Torquay; Williams, London; Woolley, Manchester."

PRESCRIPTIONS FOR PROVINCIAL ASSOCIATIONS

BY JOSEPH INCE.

THE Book of Prescriptions for the Norwich Association has been completed; those for Hull and Glasgow are in active preparation. In consequence of the painful want of facility in Latin as demonstrated by the last preliminary examination, many formulæ of the simplest character have been added—these will usually be found on the left-hand page.

The following collections have been received:—

1. Thomas Padwick, Redhill.

2. J. Baker, Romsey.

Old labels collected 1824.

3. Ernest J. T. Agnew, 232, Rue de Rivoli, Paris.

This gentleman has sent a selection of Paris ordonnances, including the celebrated recipe of Sir Joseph Olliffe.

℞—Liquor Jeremii ʒij.
Tinct. Cardam. Comp. ℥iv.
Ol. Essent. Menth. Pip. ♏v.

M. fiat mistura cujus capiat cochl. minim ex pauxillo aquæ puræ post singulas dejectiones liquidas.

Nov. 10th, 1863. Anti-cholera Mixture.

From the same source we learn the meaning of Dr. Churchill's instructions:—

Syrup. c. is Syrupus communis or simplex.

Tinct. Veratr. is Tincture of Veratrum viride, six ounces to the pint.

Solut. Aconitin is the solution of Aconitina, one grain to the ounce.

None of these remedies to be applied except under the doctor's own superintendence.

The graphic letter of Mr. Agnew, forwarded at the same time, will already have been noticed in the *Pharmaceutical Journal*.

4. John Balmer.

5. Michael Rogerson, Bradford.

6. J. M. Fairlie, 17, St. George's-road, Glasgow.

7. Thomas Davison, 71, St. Vincent-street, Glasgow.

Sensationalists will be pleased to learn that twelve of these prescriptions were written by E. W. Pritchard, who, having poisoned his wife and mother-in-law, was hanged at Glasgow in 1865.

These Scotch recipes seem to have their directions uniformly given in English.

Various sets of prescriptions have been received from Glasgow. The authorities of that city, kindly advised by pharmacists, have likewise intrusted me with the loan of some choice volumes from the library of the Faculty of Physicians and Surgeons, for which my thanks will appear in a tangible shape hereafter.

May I ask the members of our Society, though I have asked so often that I am ashamed, to allow me to finish the work undertaken.

Contributions to be forwarded to the secretary.

THE PROPOSED PHARMACOPŒIA NOMENCLATURE.

Being Dr. Attfield's reply to the discussion at the Pharmaceutical Society, April 5th, 1871.

THE discussion on this paper at a recent Pharmaceutical meeting extended so much beyond the usual hour of adjournment that I could only express my appreciation of the support the chief suggestions received; I would now reply to one or two of the points raised, and make some additional observations.

The Proposed System of Pharmaceutical Nomenclature.—It will be remembered that my leading proposition was, "that the compounds of the alkali metals and alkaline earth metals, instead of being named as hitherto, on two distinct systems, should follow but one; that instead of salts of potassium and potash we should have salts of potassium only; instead of sodium and soda compounds, sodium only; and so with preparations of ammonium, lithium, calcium, magnesium and aluminium." The eminent chemical and pharmaceutical authorities who spoke on the occasion—Professors Frankland (President of the Chemical Society), Odling, and Redwood—entirely concurred with this suggestion, and I have now the gratification of stating that the leading weekly medical periodicals—the *Lancet*, *Medical Times and Gazette* and *British Medical Journal*—have given their support to the plan; in short, that no objection to it has at present been raised.

With respect to the question of Professor Frankland as to the method of distinguishing between similar salts of one metal, *e.g.* the two sulphates of iron, I would, whenever such a course may become necessary, add to the name a word or an initial syllable recalling some prominent difference in the properties of the two compounds: thus, *green* sulphate of iron and *per*sulphate of iron; these names are, to the pharmacist, more familiar and distinctive than the more chemically useful names Professor Frankland proposes, "sulphate of ferrosum" and "sulphate of ferricum;" moreover, I fear that physicians in writing prescriptions would contract both the latter to *fer. sulph.* Again, there are two chlorides of tin, stannous chloride and stannic chloride, neither used in medicine, and only as analytical reagents in pharmacy; hence they might well be distinguished pharmaceutically as well as chemically by the names just given; or if it be undesirable to introduce this one exception to the general principle advocated, the compounds might be termed respectively *solid* chloride of tin and *liquid* chloride of tin, or *crystalline* chloride of tin and *per*chloride of tin.

With regard to the history of the chemical nomenclature at present employed in Pharmacopœias, I have said that it was only "mainly" devised by Lavoisier, and believe that I have followed general custom in speaking of it as the Lavoisierian method; at the same time there can be no doubt, as indicated by Professor Odling, that it was gradually developed by the contributions of many minds. "The system of nomenclature—the joint production of Lavoisier, De Morveau, Berthollet and Fourcroy—published in 1787 under the title 'Méthode de Nomenclature Chimique, proposée par MM. de Morveau, Lavoisier, Berthollet, et de Fourcroy,' still continues the foundation of the language which, with many variations in minor points, is employed by all chemists at the present day." (Professor G. C. Foster's article on "Nomenclature" in Watts's 'Dictionary of Chemistry.') I may add that the system I propose for adoption in medicine and pharmacy was employed in 1858 in Conington's 'Handbook of Chemical Analysis,' is much used in the dictionary just cited, is the leading nomenclature of the 'Manual of Chemistry' I first published in 1867, has since been included in the labels of the chemical specimens in the Pharmaceutical Society's museum, and for some years has been placed on the labels of at least one firm of English chemical manufacturers (Messrs. Hopkin and Williams). Hence it works well in practice. For scientific purposes it is scarcely sufficiently comprehensive; and for two or three years I have hesitated in proposing for applied chemistry a system of names not identical with the nomenclature of pure chemistry. As, however, there is still no indication that the two or three systems of names used by teachers of pure chemistry will ever merge into one, and as it would be impossible to employ more than one in applied chemistry, I do not think I act disloyally to, or influence otherwise than beneficially, the science I follow by selecting and adapting one of the current systems for permanent employment in medicine and pharmacy.

The Exceptional Alterations.—I adhere to the opinion that the old and perfectly well-understood name *arsenicum album* is preferable to *acidum arseniosum.* The body is not an acid in the sense in which every other acid in the Pharmacopœia is an acid, and, therefore should not officially be termed an acid. Such irregularities are prejudicial to the interests of chemistry and confusing to students. As for other anhydrides, it will be time enough to discuss their nomenclature when good indications appear of their official recognition. Chromic anhydride, or chromic caustic, might be termed red caustic, or red oxide of chromium. In the cases of the subcarbonate and subnitrate of bismuth, and the subacetates of copper and lead, it has been considered by Professors Redwood and Odling that the prefix "sub" is not well substituted by "oxy," and I am disposed to agree in this opinion. Indeed, I have never strongly urged the adoption of the terms oxycarbonate, oxynitrate, oxyacetate, oxhydrate as leading names, but have suggested that they would be highly serviceable as synonyms; I would now thus restrict the suggestion, and include in it the hydrato-carbonates of lead, magnesium and zinc. With respect to the "scale" preparations and some substances similarly named (tartarated antimony, tartarated iron, tartarated soda), I am glad to find that Professor Redwood coincides with me in thinking that the existing names admit of improvement. I have suggested that alterations in these names should go so far as to make them consistent with the corresponding names of the three citrates. My only objection to the six names my colleague mentioned (ammonio-citrate of bismuth, ferro-citrate of quinia, or quinine, etc.), is that similar compound words (aceto-nitrate, methyl-ethyl) are employed in chemistry for the express purpose of suggesting intimate union between the bodies whose names are included in the compound word, no such union being pretended to exist in the case of these scaly and other preparations. There are some advantages to set against this objection; at the same time it is desirable that the nomenclature of chemistry and pharmacy should harmonize as much as possible. As for the names of the alkaloids, the balance of usage is in favour of "ine," instead of "ia," as the terminal syllable of the words; thus, morphine, quinine, strychnine,—not morphia, quinia, strychnia.

THE AMERICAN PHARMACEUTICAL ASSOCIATION.

THE proceedings of the American Pharmaceutical Association, published annually, and to which is added a Report on the Progress of Pharmacy, present to us a volume crowded with the most valuable pharmaceutical information, and edited with a skill and care which is beyond praise. The last meeting of the Association was held, as our readers will remember, at Baltimore, at exactly the same time as the British Pharmaceutical Conference was sitting at Liverpool. It was the eighteenth annual meeting of the Association, and the Report is now before us. There were many papers and discussions of great practical interest, and from these we shall extract, from time to time, items of universal pharmaceutical interest. The president was Mr. E. H. Sargent, of Chicago, and Dr. Richard H. Stabler, of Alexandria, Virginia, was elected to the office for the forthcoming year. The sessions lasted four days. Mr. Sargent's address chiefly related to the business of the Association, but concluded with some practical suggestions and indications of good works which the members individually and corporately might undertake. It might be worth while to consider whether it would be possible to adopt one of Mr. Sargent's proposals in this country, namely, to create a standing committee, whose duty it should be to investigate and report annually on adulterations and sophistications of drugs and chemicals If, as a trade, we took this subject up voluntarily, it might spare us some vexatious legislation, and would certainly benefit us by maintaining the standard of quality at the highest pitch.

Passing by most of the discussions on the business matters of the Association, we stop for a moment to point out an excellent instance of faithful rebuke in a perfectly friendly manner, administered by Mr. Ebert when the report of one of the committees was stated to be not forthcoming.

"Mr. Ebert: There is a Committee on Unofficinal Formulas, consisting of Mr. Markoe, Moore, and myself. That Committee has failed to make any report for two years. I do not wish to be on a Committee that is not going to do any work. If the Chairman of that Committee cannot do the work that is assigned to him, he had better resign, and let some one else do it. We come here every year without a report, and it is the fault of the Chairman of the Committee. We are good friends, but still I find fault with him for not having a report.

"Mr. Markoe: I plead guilty to that charge, and would say in extenuation that the great amount of labour imposed upon me by my Professorship in the Massachussetts College of Pharmacy has occupied my time so fully as to leave little or no oppportunity for the work. I am willing to take the chief share of the blame, but at the same time I think it is no more than fair to distribute some of it to the other members of the Committee, whom I have repeatedly asked to furnish me with the Unofficinal Formulas in use in their locality. As there are very few used in my district, I thought it would be of little value to give what few we have in Boston. I beg leave to resign the chairmanship, as it will be impossible for me to attend to it with the work I have to do for Pharmacy in Boston."

A paper read by Mr. Procter on the "Morphiometical Assay of Opium," called forth a particularly interesting discussion. Mr. Procter described three processes for arriving at an estimate of the proportion of morphia contained in a given sample of opium. By testing with tinctures, each representing 100 grains of the same opium, it was found that precipitation by ammonia direct yielded 9·44 grains; by first adding solution of subacetate of lead, and afterwards precipitating by ammonia, 8·75 grains resulted; treatment first with lime, then with muriatic acid, and finally with an alcoholic solution of ammonia (in which form the ammonia was employed in each case) afforded 10 grains of impure morphia, more coloured than in either of the other experiments. Mr. Procter concluded that for pharmacopœia purposes the—

"First, or Staples' process, is to be preferred, modified by treating the powdered opium with warm benzine as a preliminary operation. The final success is greatly aided by conducting the evaporation of the liquor at a moderate temperature, which renders the product less contaminated with colouring matter. By reducing the bulk before precipitation to the extent noted above, the precipitation of the morphia is facilitated, whilst the crystals are equally light coloured. By using benzine beforehand the extraction of the opium will be more thoroughly accomplished. The benzine is employed to remove the caoutchoucoid matter, which interferes with the solubility of opium."

Dr. Squibb, commenting on this paper, remarked on the impossibility of judging of the value of opium by appearance—

"Almost every lump will vary from its neighbour in morphia value. The only safe rule is to powder the opium, a whole case at a time; and this drug is an exception to the rule of not buying important medicinal agents in powder. But then the pharmacist who buys it in powder should always assay it himself. When an entire case is sent to the drug mill and powdered, a fair average is obtained, and in no other way. Opium which has been dried and powdered is much easier to exhaust, and the solution is much easier to assay than if taken in the undried condition; and hence, the buying opium in powder facilitates the assay. Then the opium should be taken in larger quantity than the one hundred grains, which is commonly recommended. The modification given by Mr. Procter is a very good one; probably as good as any, and more applied to general pharmacy than any that I know of, if we are careful not to pour off the mother liquor until the crystallization is complete, for I have seen instances when it took days to complete it. If you crystallize in a capsule, set it in water, and cover it so as to produce a water-joint. It can then be allowed to remain twenty-four or thirty-six hours, by which time the precipitation is usually, but not always, complete. The crystallization is slow under some circumstances, and rapid under others, and the cause of this has not been determined. Alcohol of about seventy-one per cent., the strength fixed on by Gutterman and advised by Saint Planeat, is the strength of the solution from which to precipitate this crystallized matter. It seems to hold the colouring matter better in solution, and to allow the crystallization to take place better. When the assay is set to crystallize in a capsule, the crystals are deposited in a crust, from which the mother liquor may be safely and early poured into another capsule, and in this condition the crystals are easily dried and weighed. The mother liquor should be allowed to stand for a day or two to ascertain whether or not the crystallization be complete. If the process of crystallization in a closed, confined space be not adopted, the evaporation from the surface of the capsule will form a crust, which is not morphia, and which materially invalidates the accuracy of this result. By this simple process and these little tricks of managing, it is in my judgment the safest and most reliable of all the short and easy processes; and it is so easy that any pharmacist of ordinary acquirements can do it the second time he tries; and, like everything else, it becomes the more valuable the oftener it is practised."

Mr. Colcord asked whether it would be justifiable to use powdered opium that contained considerably more than the normal proportion of morphia? This question nearly brought on an ethical discussion, but the general opinion seemed to be that it was right to keep as near as possible to the ten per cent. standard.

A discussion on "Suppositories" led to the conclusion that in almost all cases these were best made with cacao butter alone.

Dr. E. R. Squibb read a paper on "Rhubarb," which was followed by a discussion, the whole of which was of such general pharmaceutical interest, that we copy it entire, and with that must conclude our excerpts for the present:—

"The New York market has been well supplied with good rhubarb at moderate prices throughout the year, and the prominent houses have rarely been without packages of very fine quality, whilst the poorer grades have been in the usual abundance. Buyers of every quality, from the finest to the poorest, have therefore found no difficulty in supplying themselves throughout the year, and the quality of the better grades has steadily advanced, with prices remaining moderate.

"The better grades still reach the market a little damp, and deficient in aromatic properties, thus affording continued evidence of haste in drying and packing. But entire cases are now reaching the market with scarcely a really bad piece in a case. This best quality is generally well peeled, and the surfaces often in the natural condition, or not artificially coloured at all, nor with the appearance of being washed. These better grades are, however, still of very dull sale, and yield poorer profits than the lower grades. It is not uncommon to see the cases of lower grade disappear and change around one of these finer lots until the importer gets tired of seeing it and quoting its price; and then the concessions in the already very moderate price in order "to close out the lot," afford that temptation to buyers which the quality failed to excite. For powdering, the lower grades are still in popular demand, and the buyer who would look to the higher grades to send to the mill, would be an unnatural curiosity. A good proportion of the higher grades which are sold are still believed to be submitted to the process of Turkeyfication; that is, made so as to imitate old-fashioned Turkey and Russian rhubarb, that it may serve to keep up the supply of that "little more that is still left of the old kind," which brings exorbitant prices from the confiding consumer. These "confidence games" of the trade stand much in need of the police influences of this Association.

"Two cases or chests of rhubarb are herewith presented as illustrating the better grades of the market during the past year. One chest is of small generally round pieces, and the other of larger flatter pieces. The first was imported by Messrs. Dodge and Olcott, of whom it was bought at 2 dols., gold, per pound. Being paid for with gold at 1·16⅜ dols., the net cost was about 2·33 dols. currency. In about a month it had lost about 3 per cent. by drying, although not spread out at all, and will probably lose as much more within the next month, particularly if it be powdered. Every piece in this chest has been bored for inspection, and although a small proportion of the pieces are darker, and a few are discoloured towards the centre, not one really unsound piece has been met with, and, while a large proportion of it is well fitted for the nicest tonic and stomachic uses of rhubarb in the root, the remainder is equally well fitted, without much garbling, for all the less delicate uses to which powdered rhubarb is applied—even to the delicate stomachs of young children. It is less aromatic than it should be, but on the whole is almost unexceptionable, and will improve by age if secured from the attacks of insects, as may be done by suspending an open vial of chloroform in the receptacle for it. The net prime cost, without addition for labour or other expense, is only about 2·50 dols., or in powder 2·65 dols.

"The second chest of flatter pieces was sent to the writer, on special order, by Messrs. Arthur S. Hill and Son, of London. The order to purchase the best that the market would afford, without limit of any kind, was in their hands two or three months, and they are believed to be experts, with a good knowledge of their market. This chest may, therefore, be regarded as representing the condition of the London market for high grades.

"This rhubarb is drier than the first chest, and perhaps a little better in its general quality; but as it has but recently arrived, and is not yet thoroughly examined, it may fail to confirm this judgment. A small proportion of the pieces on top have been bored, and no really unsound pieces have been met with. The borings are more uniform in colour, and of a rather brighter colour and drier than those of the first chest, and are more aromatic, though not so strong in odour. The invoice cost of this was five shillings and ninepence, sterling, per pound, which, with freight, duty, and other expenses, makes the net prime cost here just about the same as that of the first chest, or about 2·33 dols. currency. This, however, will not lose so much as the other by drying—probably not more than half as much, so that, with estimated loss, labour, &c., added, the ultimate cost will be probably 5 or 6 cents per pound less.

"The two chests are, however, so nearly alike, and so good, and at such moderate price, as to leave nothing to be desired in regard to quality and cost in rhubarb to those who choose to exercise the necessary care in buying, since, even in small quantities, this grade can be bought at 3 dols. 25c. per pound.

"After the 1st of January next the duty of 50c. per pound in gold ceases, and as the market stock, in anticipation of this event, will be small, a corresponding reduction in price may be expected soon after. With such rhubarb as this at about 1 dol. 75c. to 2 dols. per pound, there should be but little temptation to deal in the lower grades.

At the conclusion of his paper the author, referring to some samples, said: "The boring of these roots very well illustrates their condition, although it does not give the colour as well as breaking. The breaking of the pieces injures them more than boring, while any one who becomes expert in the appearance when bored will judge as easily by bored pieces as by fractured pieces. It exposes less of the rhubarb to the air, which is always injurious to its aromatic properties. Any one who will examine this rhubarb will see, not a sample of rhubarb, but an entire case of a grade and quality which I regard to be unexceptionable. I know there is not a single piece in that case, nor of the sixteen or eighteen pounds bored of that one, that is objectionable for the uses of powdered rhubarb, even when admitted to the delicate stomachs of children; but a grade lower than this I maintain is not fit for this purpose. We can get such rhubarb as this without material difficulty. I have seen it in the market during the past year almost constantly; and now, any one visiting New York at any time can buy a case practically as good as that. I bring the whole case to avoid the suspicion of sampling, and to show the Association there is such a thing as an entire case of good rhubarb even now,—as good rhubarb as any we have ever seen since the Russian inspectorship was abandoned. I do not think the Russian rhubarb received in old times was medicinally better than either of these cases. The price is very moderate. 2·33 dols. is to be regarded as the net prime cost; and this would include a profit to the large importer, although his profit would be smaller than on the lower grades, of which he would sell probably ten cases to one of this. Taking into account the labour of boring the whole chest, and selecting the few pieces that are not merchantable as selected rhubarb, the cost of this entire chest in powder may be estimated at not more than 2·50 dols. or 2 65 dols. Then, if I sell the powder at 3·25 dols., and the selected rhubarb at 3·25 dols., this is an ample profit, but not disproportionate to the care and labour bestowed upon it. There is no good reason for trying to conceal a fair, reasonable profit, and if we would show our hands more in these things, and take a little higher ground, we should have a better effect.

"Mr. Robbins: If I were to select any article to show the value of discussion, I should select this. The fact is, to-day we have no competition in rhubarb. We can get any price we ask for rhubarb, and it is due to the efforts of this Association (and very much to Dr. Squibb) and the discussions that have been published. This Association is no small affair; its influence is widely extended. These rhubarbs I have looked at rather superficially, but find them very good. I should think it had been selected abroad before it was sent here. I think this rhubarb runs a little better than any we have been able to get out. We have lots of rhubarb offered to us, and it is no use our touching inferior rhubarb. Our trouble is to get it good enough, and this is very much due to the discussions here. I will give you some facts about this matter. We buy the very best rhubarb we can; we are obliged to buy the very best. For our retail trade we always sell selected root. There are fifteen samples of powdered rhubarb upstairs, and I may as well tell the whole story about that. Our Mr. John McKesson, jun., who was put at the head of the committee on the drug market this year, suggested to present the Association with a complete list of roots, but they are very numerous, and some are rare. We have now a lot on the way which have not reached us, and at the last moment we sent you gums. Turkey rhubarb is not to be had, but the orders keep coming in, and buyers must have it. I will tell you what we do about that. What we call the "Dutch-trimmed-imitation-Turkey" rhubarb—the Austrian rhubarb—is steadily improving in quality. I do not know why it is, but we get a good deal of Austrian rhubarb that will come very near to the old-fashioned Turkey rhubarb. I always recommend China rhubarb to everybody, and we sell it wherever we can; but there is a class that will have Turkey rhubarb, and we always sell them (but we sell it for what it is) selected Austrian rhubarb. We get some of it very handsome, indeed. That is the state of our trade to-day. Competition in rhubarb is out of the question. We get now for our best selected 3·50 dols. We have a machine that cuts the rhubarb by steam into small, nice pieces, and we are very careful in powdering. If a piece is a little dark in the centre, we reject it; the rejected is ground up and sold to the jobbing trade, and the retailer gets the best of it. We have much to hope from this Association. The legislation of the country is all against us, and, I believe, against the interest of the whole trade. All the laws I have been able to look into in relation to the business thus far, work about as much harm as good. We have been more benefited by this Association than all other means, and I wish the drug business was all rhubarb to-day.

"Mr. Maisch: An interesting fact was stated, that part of our Turkey rhubarb nowadays is grown in Austria. The cultivation of rhubarb in Austria has been carried on for a number of years past, and at one time Austrian rhubarb was allowed to be used in certain cases by the Austrian Pharmacopœia. That, however, has been discontinued, and they do not use the rhubarb grown there except in veterinary practice and for poor people. The apothecaries are not allowed to use it, unless it is specially ordered, but it seems their surplus rhubarb is sent over here, and the best of it sold as Turkey rhubarb.

"Mr. Robbins: The sale of so-called Turkey rhubarb is growing less every year, and we are all the while persuading people into getting China rhubarb; but it is very hard to remove old prejudices. A great many people want the same old Turkey rhubarb that was sold for years by our best druggists, and if they can help it, they will not have anything but Turkey rhubarb.

"Mr. Thomsen: In your investigations of the subject of rhubarb, have you discovered that it makes any difference in which section of China it is grown? The works on Materia Medica represent that Turkey or Russian rhubarb, which formerly came into the market from Moscow, was brought from the north-east of a range of mountains (the name of which I do not recollect at present) by caravans to Siberia, and found its way into market in that way. The other rhubarb, which we receive from Canton and the ports in China, is generally, when it is brought into this country and the English markets, different in appearance, particularly in the fracture. It appears to me, unless some recent discoveries have been made as to the comparative value of each of them, that the value would depend upon the amount of oxalate of lime which is in the rhubarb. I have, in my experience, never had any difficulty in getting good rhubarb at any time, if I was willing to pay the price for it. I imported a case of rhubarb from London, selected by David Taylor and Sons, and it cost me five dollars in gold. It was a rhubarb in appearance entirely different from that on exhibition; it had a very rough appearance, but the fracture was beautiful, of a rich pink colour. I never have been able since to get any like it, except a case from Messrs. Dix and Morris, New York, which had lain in their place six months, and it turned out, as Dr. Squibb remarked, that it lay there and nobody wanted it. I happened to see it, and it was the same kind as I had purchased before. Dr. Squibb's cost him less than mine cost me. In regard to rhubarb, I do not think, so far as my experience and observation go, that there ever has been any difficulty in the London market in getting good rhubarb, if you are willing to pay the price for it. I simply ask this question in regard to rhubarb to ascertain whether this which we now get from China has the same medicinal value, or whether there is any difference between that and what we formerly got by way of Russia.

"Mr. Robbins: The old test for rhubarb was oxalate of lime, and to-day in the selection of Austrian rhubarb we reject every piece, that is, for the near trade, that does not manifest some oxalate of lime. That is still required by the trade. Years ago we should not have received this rhubarb of Dr. Squibb's as first-class rhubarb, because we regarded a certain fracture, certain lines, and certain appearances, certain tests of the presence of oxalate of lime, in more or less considerable quantities, as necessary. We also thought the solid heavy rhubarb, which broke with a sort of milled fracture, was the true rhubarb to buy. We used to get beautiful specimens of that; but we do not get any such rhubarb as we used to get. Dr. Squibb has considerably modified the trade by his reports. I understand him to claim that the oxalate of lime is the result of age. We know very little about the source of rhubarb, even Turkey rhubarb. The belief is that it comes from the great plains of Tartary, but we have not been able to trace it beyond a certain town, Kiachta. All we knew is that the rhubarb we receive to-day, although it is pronounced good by the pharmacist, is different from what it used to be. We would not have called this kind first-class fifteen years ago; we should have said it was a fair rhubarb. We then used to get beautiful solid pieces that, when broken, were very finely lined, and of a very fine colour; when you put your knife to it the edge would go right off from it.

"Mr. Thomsen: Have any recent discoveries been published in regard to the character of the rhubarb as we now receive it?

"Mr. Robbins: It certainly comes from a different source. I have thought sometimes the appearance was due to the fact that it had not the age. The very fine pieces we used to get were old rhubarbs; and I have been inclined to think these here are new roots. This fact, that it dries out in weight shows it; but formerly we could keep it for years without losing weight.

"Mr. Thomsen: I think I recollect that there was a commission sent to China and Russia to see if they could prove the source of the rhubarb, and cultivate it in some other country besides China, and they did succeed in getting some from the lower edge of these mountains on the north of China; but when they brought these plants to Europe—to France and to England—although they selected the isometrical line as far as possible, the rhubarb that was produced was not the same; it did not present the same appearance. The question then presented was—whether it was the climate, or whether the commissioners had been deceived?—and these rhubarbs that now come into the market were found to be identical in quality with the old Russian rhubarb.

"Dr. Squibb: We do not know much about it.

"Mr. Maisch: We do not know anything about it. For the last hundred and fifty years the Russian Government has endeavoured to find out the sources of rhubarb received by way of Kiachta. It is not known where the former Russian rhubarb was grown. We know it was brought by caravans to Kiachta, and that is all. The Russian Government at various times obtained plants from the merchants there, and every one of these merchants said these plants or the seeds were the same from which the rhubarb was obtained, and they invariably turned out to yield a different root, not only in their appearance, but entirely different in structure. Subsequent investigation throws no further light on the subject. The root grown in Austria is *Rheum palmatum*; and the appearance at first sight, at a distance, is very handsome. It presents a nice mottled appearance. The Russian rhubarb that we used to get here fifteen or twenty years ago exhibited a bright, red colour, mottled with white. But even on a superficial examination the difference between it and the former is readily seen. Whether the different varieties we meet with in the market are obtained from one and the same plant, or from different plants, has not been finally settled. While some pharmacologists are inclined to the belief that the former Russian and China rhubarb came from the same plant, and are mere varieties, Schlagintweit, who has travelled through that country, and who states that it is extremely difficult to obtain information, the inhabitants being very jealous of giving it, insists that they are not.

"Dr. Squibb: One of the principal difficulties in the way, as well as the obstruction of the old source of Russian rhubarb, has been a more rapid increase in the demand than in the supply. This always will follow when a drug is produced, as this has been, for many years by uncultivated and uncivilized people, who do not answer promptly to the demand of the market. As the science of medicine and its uses progressed, they were not up to supplying it so rapidly as it was required. It is a root of slow growth, succulent and mucilaginous when young, and comparatively inert, maturing slowly to a maximum of medicinal efficacy, and then again becoming comparatively inert from an excessive deposit of insoluble oxalate of lime as it grows old."

EIGHTEEN HUNDRED AND SEVENTY-SIX.

The retiring president of the American Pharmaceutical Association, Mr. E. H. Sargent, of Chicago, in his annual address last September, pressed forward a suggestion which had emanated from Mr. John M. Maisch, that an International Congress of Pharmaceutists should be invited to meet at Philadelphia during the summer of 1876. On the fourth, or, rather, the Fourth of July, 1876, the United States will have completed the first century of its independent existence, and it is anticipated that that important fact will occupy no little share of attention on the transatlantic continent during the aforesaid year. We extract from the president's address the paragraphs relating to this interesting proposal:—

"It will be conceded that druggists as a class are not wanting in the nobler traits of character, as shown in the exercise of all social and patriotic virtues. Our professional labours and personal tastes may lead us away from politics and war, but do not prevent us from glorying in the national progress and honour. Looking at the near future, we find ourselves as a nation approaching the centennial anniversary of its birth.

"Would it not be well, in anticipation of this great event, for us, as an Association, to devise some suitable commemoration of this important period in our national existence, and of the world's history. Our general government will, without doubt, signalise this epoch in a becoming manner, and may possibly lend its aid to the inauguration of a World's Exhibition of the Industrial Arts and Sciences, in which we might profitably co-operate.

"In this connection I am pleased to lay before you, as being well worthy of consideration, the excellent suggestion of our permanent secretary, who is always alive to whatever concerns the interests of Pharmacy. He proposes an International Congress of Pharmaceutists to be held at Philadelphia during the summer of 1876—the year of our national jubilee.

"To me it seems that such a congress of men, from whose ranks science has had many of her brightest ornaments, and to whom the world is indebted for some of its most beneficent discoveries, would be a most fitting celebration, and the time most favourable for such an occurrence.

"It will be remembered that the next Congress of Pharmaceutists will be held at St. Petersburgh, in 1872. The usual interim of four years will place the succeeding one in 1876. Shall it be held with us? If we so desire, it would be well to arrange for it previous to the Congress at St. Petersburgh.

"Doubtless, the concurrence of notable events in our country at that time will bring many visitors to our shores, and in every view it seems a most propitious moment for us to make the effort. We have ample time for preparation, and no other opportunity is likely to offer in many years to come for so favourably and prominently advancing the interests of Pharmacy in the United States. I therefore suggest the appointment of a committee to report on the subject with a plan of action, at our meeting in 1871, and hope it will meet your approval."

The Committee to consider this suggestion was afterwards appointed. Should it be adopted and provided that the various empires and republics concerned can keep from quarrelling about that time, such an International Congress would, doubtless, be a glorious success. Patriotic sulkiness whispers that Englishmen would look rather silly in taking any part in the celebration, but the enjoyment offered would be sufficiently tempting to induce many of us to forget our prejudices and our grandfathers, and therefore we hope that no false notions of delicacy will induce America to exclude Great Britain from the invitation.

THE PRELIMINARY EXAMINATION (Latin).

BY JOSEPH INCE,

Associate of King's College, London.

I CANNOT express the regret I feel that so many should have failed to pass this introductory examination. It is precisely that from which any average schoolboy would rescue himself with ease. The questions in arithmetic and English are of the most elementary character: the Latin, therefore, is the stumbling-block. The examiners know well that not a few candidates have left school and subsequently have been engaged in business—therefore on purpose five sentences were given—one difficult, two comparatively easy, and the remaining two of such a nature as that they ought to have been translated by young men hoping to join the ranks of pharmacy. Let it be remembered that the sympathy of every true examiner is on the side of the examined, then will be understood the regret above expressed on reading the following sentence in a recent number of the *Pharmaceutical Journal.*

"First or Preliminary Examination. Two hundred and ninety-four candidates presented themselves for this Examination on the 3rd April; the following one hundred and sixty-five passed, and were declared to be duly qualified to be registered as apprentices or students."

This disheartening and unhealthy state of things calls for serious inquiry. The Latin questions are reprinted here in full.

LATIN.

1. Translate into English two at least of the following sentences:—

   Suam innocentiam perpetuâ vitâ, felicitatem Helvetiorum bello, esse perspectam. Itaque se, quod in longiorem diem collaturus esset, repræsentaturum, et proximâ nocte de quartâ vigiliâ castra moturum, ut quam primum intelligere posset, utrum apud eos pudor atque officium aut timor valeret. Quod si præterea nemo sequatur, tamen se solâ decimâ legione iturum, de quâ non dubitaret, sibique eam prætoriam cohortem futuram. Huic legioni Cæsar et indulserat præcipuè et propter virtutem confidebat maxime.

   Cognito Cæsaris adventu, Ariovistus legatos ad eum mittit, quod antea de colloquio postulasset id per se fieri licere, quoniam propius accessisset, seque id sine periculo facere posse existimare.

   Postulavit deinde eadem quæ legatis in mandatis dederat, ne aut Æduis aut eorum sociis bellum inferet, obsides redderet: si nullam partem Germanorum domum remittere posset, at ne quos amplius Rhenum transire pateretur.

   Coque per horam dimidiam, subinde agitans, et ubi liquor refrixerit adjice aquæ destillatæ quantum satis sit ut octarios sex impleat, denique cola. In vasis bene obturatis servetur.

   Misce. · Fiat haustus, quintâ quâque horâ sumendus, et tempore usûs, adde singulis, si opus fuerit, ad præcavendum diarrhœam, Tincturæ Opii guttas tres.
2. State to which declension each of the following nouns belongs, and give the accusative:—*emplastrum, tinctura, syrupus, pulvis, manus.*
3. What is the ablative absolute? Give one or more examples.
4. Which case do the following prepositions take after them?—*circiter, inter, apud.* Illustrate by examples.
5. Explain the difference between personal and impersonal verbs. Give examples.
6. State how the nominative to a verb is found, and exemplify the same.

Look at No. 3. What is the ablative absolute? No student can understand a page of Cæsar who cannot answer this question, yet the necessity of the case compels me to print this extract from the Latin Primer. [Any other Grammar will do as well].

A substantive combines with a participle in the ablative which is called absolute:

Regibus exactis consules creati sunt.

For the participle is often substituted another substantive, or an adjective:

Nil desperandum Teucro duce et auspice Teucro
Natus est Augustus consulibus Cicerone et Antonio.
Jamque cinis, vivis fratribus, Hector erat.
Quid dicam, hâc juventute?

Suppose for a moment the ablative absolutes were extracted from Cæsar's "Commentaries" and printed in these columns, a portion of this Journal would have to be omitted. The supposition, therefore, may be entertained that as this leading questiòn was so seldom correctly answered last April, and that Cæsar proved a blank, either that masters do not superintend the studies of their apprentices, or that the teaching of Latin is defective in those schools to which our junior students and apprentices have access. The idea is strengthened by the fact that there is no stint of excellent elementary books at moderate prices, while experience demonstrates that there are many admirable teachers.

In order to meet the difficulty, four hundred Latin formulæ of the simplest character have been added to the Prescription Books now in course of issue under the sanction of the Board of Examiners and the Council. Their appearance may excite surprise until it is known that they are purposely inserted in order that the student may learn practically the rudiments of construction. These recipes only form mechanical aids: by faithful teaching they may prove of essential service, but they are secondary in their nature and importance. Let me repeat the opinions of some great practical exponents of the art of teaching, specially as applied to what are termed erroneously the *dead* languages.

Granted, that all commencements are rude and difficult in every branch of acquisition, whether of art, trade, or language; admit it definitely, and at once, and the stumbling-block which perplexes boys at school, and those whose educational advantages have been scanty, is removed. Who has not groaned over his Delectus, loathed his Principia, and detested grammar? Yet some live to love an Ode of Horace, and without any charge of affectation, to delight in one of Cicero's letters. What can be more odious than the grammar of botany? touch the sensitive plant, and it is not more completely shrivelled up than the unhappy pupil labouring over names and definitions. Yet some live to love plants and flowers, and to delight in reading, at first hand, the book of nature.

Latin forms no exception: no after success can follow until the dry groundwork of its elementary principles has been laid, and it is the decision of every college tutor that the deeper this groundwork, namely, the wider the actual vocabulary of the student, and the more accurate his knowledge of the laws of construction, may hope be entertained for his future.

Here we stop. and turn to an entirely different thing, to the consideration of which I most earnestly direct attention.

So long as a tutor (the above-mentioned Rubicon being passed) will teach Latin as a dead language, in a dead manner, solely by help of dictionary and grammar, it *will* be dead, and that instructor must take the consequences.

Cæsar is in our thoughts just now. I hope it will be superseded in our examinations by something better, for it teaches Cæsarism and not Latin—in other words it is Cæsaric and not Ciceronian. Still there it is. Why not then, in its explanation, leave the routine of rules and prosody, and wake up the interest of the learner in favour of a book written in its day by a *living* author, chronicling the events of his own time. Dr. Arnold went to Rugby and swept away the old dreary scholastic system, nor can we pharmacists, though with painfully less ability, go far wrong by following in his steps.

Tell the student who Cæsar was, and what he did—tell him that "De Bello Gallico" means a war in France, and give him a good modern map with the towns and rivers marked. You who are grown up are partially omniscient, but to a boy "the Gallic War" suggests some obscure classical allusion. Tell him that Arar is the Saone—that Rhodanus is the Rhône, and that Lugdunum is Lyons from where you get silk, and where, by the failure of the silk trade they were nearly starved. Tell him that Lutetia, an island in the Sequana, means Paris, a city occasionally mentioned in the daily papers. A little arm-chair conversation about these cities can possibly do no harm.

And so for pages more we might exemplify the subject. Why not advance further? Why should not the teacher, even if only to relieve himself from the monotony of the grinding mill, weave the story of Cæsar and his age into a narrative the which to tell his pupils? The first book, De Bello Gallico, will do, and should this be thought romance, let him but try, children will listen to the story.

I am met at once with the reply that this is very pretty, and what has been called the flower-pot system—but it answers. Create an interest in the work in hand, let hard work follow.

Then explain that in Cæsar there are three degrees of difficulty.

I. The historical narrative. This is plain, easy to be construed, and should be read first.

II. A speech of anyone but Cæsar reported by himself. This intentionally is more difficult and obscure in construction than the narrative.

III. A speech of Cæsar reported by himself. This intentionally is most obscure, involved, and unintelligible. Precisely the same occurs in compositions of Napoleon III., whose life of Cæsar, now before me, seems beyond praise. At one time I used to arrange side by side a speech of Cæsar taken from the "Commentaries," with a speech of the late Emperor taken from the *Moniteur*. They are made upon the same last. Quod is replaced by considérant.

I am so anxious not to talk platitudes about this matter, that I would ask our editor to reprint this characteristic address. It will be found in Lib. 1, chapter xiv.:—

"His Cæsar ita respondit: Eo sibi minus dubitationis dari quod eas res quas legati Helvetii commemorassent memoria teneret, atque eo gravius ferre quo minus merito populi Romani accidissent, qui se alicujus injuriæ sibi conscius fuisset, non fuisse difficile cavere; sed eo deceptum quod neque commissum a se intelligeret quare timeret, neque sine causa timendum putaret. Quod si veteris contumeliæ oblivisci vellet, num etiam recentium injuriarum, quod eo invito iter per provinciam per vim tentassent, quod Æduos, quod Ambarros, quod Allobrogas vexassent, memoriam deponere posse? Quod sua victoria tam insolenter gloriarentur quodque tam diu se impune injurias tulisse admirarentur, eodem pertinere. Consuesse enim deos immortales, quo gravius homines ex commutatione rerum doleant, quos pro scelere eorum ulcisci velint his secundiores interdum res et diuturniorem impunitatem concedere. Quum ea ita sint, tamen, si obsides ab iis sibi dentur uti ea quæ polliceantur facturos intelligat, et si Æduis de injuriis quas ipsis sociisque eorum intulerint, item si Allobrogibus satisfaciant, sese cum iis pacem esse facturum. Divico respondit: Ita Helvetios a majoribus suis institutos esse uti obsides accipere non dare consuerint: ejus rei populum Romanum esse testem. Hoc responso dato discessit.

Some peculiarities will be noticed right through Cæsar:—(*a*) The arbitrary use of the word *quod*; (*b*) The interpolation (designed to confuse or mystify the meaning) of the ablative absolute; (*c*) a whole phrase constituting a nominative; (*d*) Cæsaric expressions only to be understood by reading carefully the Gallic and Civil Wars; the use of the infinitive.

To ask a student to parse these speech sentences is equivalent to the old pleasantry of providing a bottle for the universal solvent. Still, were these things known generally, as they are to intelligent instructors, we should have few examination failures. Nothing can be a substitute for groundwork—theories of easy roads to knowledge never pay, but it is incumbent on every teacher "sometime, somehow, somewhere" (Kingsley) to awaken the intellectual life. This is best done by realistic exposition. With Cæsar this is not difficult. Napoleon's editor informs us that Charles VIII., Charles-Quint, the Sultan Soliman II., Henri IV., Louis XIV., Condé (the Great), Christine (Queen of Sweden), Louis Philippe, and last—certainly not least—Napoleon the Great, from his exile in St. Helena, thought it a great happiness to understand and explain to others a work which our students cannot construe and consequently despise.

This man Cæsar was the immediate predecessor of Augustus, whose name is immortalized in the records of history, for of him our Lord said, "Render, therefore, unto Cæsar the things which are Cæsar's, and unto God the things which are God's." The manhood of this man Cæsar belied the promise of his youth—he began life as a young Roman sensualist, he rose into a Roman statesman. His conduct is not to be judged by the ethics of the nineteenth century. If our apprentices knew these things and many more, would they not less be disheartened by seeming difficulties, and less sickened by the dreariness of the start? Would they not, with bright hope in the distance, look more at the rose, less at the thorns? Speaking in the abstract, it is not for me nor anyone to say aught in praise of a language which for centuries has conserved our faith, literature, and learning.

UNITED STATES.

(FROM OUR OWN CORRESPONDENT)

NEW YORK, May 1.

"MOVING DAY," for you must know that we all move on one day here, "rain or shine." Happily, our chemists are as a rule exempt from this annoyance. They are in the habit of taking their shops on longer leases than other traders; occasionally the exactions of landlords have necessitated a change of location, and at other times the changes in the centre of the population, in this rapidly developing city, have rendered it necessary. I cannot better illustrate this than by citing one of our most esteemed and successful firms of chemists, Hegeman and Co., who have the same position here as that occupied by Messrs. Boll or Savory, in London. This house was founded some thirty years since by a most worthy, enterprising, and educated druggist, now deceased, Mr. Wm. L. Rushton, who was the senior partner in a highly respectable firm of wholesale druggists in William-street, Rushton and Aspinwall. *En parenthèse*, Mr. Aspinwall continues to-day the business at the old spot, and has the very highest reputation in the trade; from a commercial point of view, his long career in the New York drug trade has resulted most satisfactorily.

Mr. Rushton's old retail shop, the best in the city in style, in those days, was at 110, Broadway, which is now considered quite "down town"; the business was carried on successively by the firms of Rushton and Aspinwall, Rushton, Clark, and Co., and on the death of Mr. Rushton, by Hegeman, Clark, and Co., and subsequently by Hegeman and Co., whose principal shop is now at 203, Broadway. The firm always carried on several shops in different localities, limited to three, I believe, until within a few years. One of these was an "Astor House Corner," and although a very small one, its capital location made it a favourite shop; another still higher up Broadway, corner of Walker Street, admirably supplies the want of a reliable pharmacy in the most central part of the wholesale district. Hegeman and Co. have always chosen their business positions in our *grande rue*, and they now have *five* establishments in all. Their rent and other expenses must be heavy, as these Broadway shops are the dearest of all our metropolitan locations. While not cognizant of the exact figures, I shall not be far wrong in estimating their aggregate annual rent at £3,000. Each shop is in the charge of a junior member of the firm, and the admirable way in which the business of these various establishments is conducted might be taken as a model in any country. William L. Rushton's two sons, Frederick V. and John C., have pharmacies of their own entirely disconnected with the old firm. The former fell into the "Astor House Corner," where the rent cannot be less than £1,000, and the latter has a very splendid pharmacy on the corner of Twenty-fifth-street and Broadway, in the heart of the fashionable district. Mr. J. C. Rushton has adopted the plan of keeping his shop open and fully lighted up all night, with a special staff unconnected with the day business; this is a great convenience in this populous and first-class neighbourhood, and the returns to the enterprising chemist are large. Mention must not be omitted of the old and most respectable French chemists, J. Milhau and Sons, well known in Europe, and most highly esteemed here. The senior recently retired from business with a handsome fortune, much of which is invested in real estate in choice locations, the valuable iron-fronted premises in Broadway occupied by the firm being one of these investments. The firm at present is, "J. Milhau's Sons," and it has always been a subject of remark that Mr. Milhau, as well as his sons, notwithstanding the large business in their hands and their wealth, attended personally to their patrons.

Another French firm long acclimatized here, is that of Delluc and Co., who have a fine shop in Broadway, near Houston-street, midway between "down town" and "up town;" this firm occupies the very first position in regard to quality of their medicines, and they are large dealers in French and English perfumery and patent medicines. The firm to whom they succeeded was in old times located in Park-row, and will be recollected by residents of thirty years ago as Place and Souillard.

In the magnificent building erected by the *New York Herald* is located Mr. Alex. Hudnut's pharmacy; originally from Philadelphia, I believe, Mr. Hudnut has succeeded in a brief period in well establishing himself in the metropolis.

Fronting Madison-square, and essentially "up town"—answering to your "west end," in a corner of the fashionable Fifth-avenue Hotel, is the large and beautiful pharmacy of Hazard and Caswell, than which there is no more reputable and profitable establishment among the six hundred retail chemists and druggists in our city. Probably the rent of the premises of this firm is higher than that of any other chemist's shop in America. Some twelve years since, when the Fifth-avenue Hotel was just built, and being opened, Messrs. Hazard and Caswell, then and still of Newport (the American Brighton) leased the beautiful shop they occupy for some £400 per annum; to-day I think they must be under a charge for rent of from £1,200 to £1,500. Their sales of soda-water and of artificial Kissingen and Vichy, drawn from beautiful statuary marble fountains is wonderful.

On another occasion I will glance briefly at the many fine and first-class pharmacies in other parts of the city as well as our wholesale drug houses; their position, history, and the premises they occupy—some of them very extensive, and worthy of notice. The enterprising suburb of New York, "across the river," Brooklyn, with its three or four hundred retail chemists' shops, is also worthy of mention.

The efforts of the audacious Helmbold to add to the number and splendour of the Broadway pharmacies have lately been so fully alluded to, I notice, in your columns, that I need not make further mention of them. Helmbold's latest "idea" is his "Catawba Grape Pills," which, as he announces, are "composed of Catawba grape-juice and fluid extract of rhubarb." "This pill," he says, "I have thought of offering to the afflicted for ten years; they are now perfect, and I shall stake my time and fame on their effectiveness—the pill itself is made in an *inviting style.*" He also suggests that old maids try his Fluid Sarsaparilla! But enough of this, lest you weary of the doings of this restless operator in medical specialities.

Among other trade items I note the resumption (after a suspension and compromise) of the wholesale patent medicine house of F. C. Wells and Co., a house much esteemed in the trade, but not uniformly successful during the last twenty years, much to the regret of their many personal friends.

The eminent and wealthy patent medicine proprietors, Messrs. J. C. Ayer and Co., of Lowell, Massachusetts, have lately purchased the "right, title, and good will" of "Hall's Sicilian Hair Renewer," for which they paid £20,000. This article is an entirely new one within six or seven years; it has been managed with marked ability by Messrs. R. P. Hall and Co., of which firm Mr. Charles A. Gillis is the labouring oar—"a very quiet unassuming gentlemen, and one whom success has not spoiled," as a prominent bank president remarked to me recently.

The rapidity with which proprietary articles are placed upon a profitable footing in this country must be a matter of surprise to English readers; the article in question affords a striking illustration of what can be done by an intelligent organization of "publicity."

The following paragraph in regard to the founding of a new town in Massachusetts by Dr. Ayer, one of our patent medicine magnates, is running through the interior press:—

"The three most popular newspaper articles at this time are the account of Dr. Helmbold's trip to Washington, Dr. J. C. Ayer's speech at Ayer, Mass., and Schuyler Colfax's article on the Northern Pacific Railroad. These three recent contributions to the literature of the day have been copied into nearly all the papers in the country. Of course no one is so simple as to suppose there is anything like an advertising dodge connected with this wonderful popularity."

The papers contain a curious case, which I quote literally, "A plot of several prisoners to escape from the Rhode Island State Prison recently culminated in a failure. Morphine was infused into the cold tea brought in for the night-watchman's lunch. The quantity was so great that it was immediately thrown off the watchman's stomach, and the conspiracy thwarted. A confession has been made by one of the parties that the watchman was to be stupefied and killed if necessary, and then all the plotters were to be let out into the yard and scale the wall. A prisoner sometimes employed in the dispensary secured the morphine."

We have had a case of accidental poisoning from carbolic acid, and many others are to be feared unless the people are more fully enlightened as to the real nature of this potent disinfector. Among the newest specialities here are "Carbolic Salve," Carbolic Troches," "Carbolic Baby Wash," "Carbolic Camphor Ice," "Carbolic Pastiles and Fumigators," "Carbolic Strengthening Plasters," "Carbolic Soaps," "Carbolic Plant Protector," "Cresylic Sheep Dip," and "Cresylic Ointment," etc. Carbolic as a disinfectant gains footing, especially in the absence of other approved deodorizers; a local interest in the whole subject of disinfectants is working up, and the developments of the American pharmaceutist in this direction may be expected to throw additional light upon the subject to that already in our possession from the labours of your eminent sanitary men. We look to see all the approved English disinfectants in established sale here also at an early day. Vast quantities of the genuine Labarraque's Solution (Paris) have been sold here for years past, and our manufacturing chemists have marketed thousands of dozens of an imitation, bearing a fac-simile of the French label.

This leads me to note (briefly now) the dishonest practices here of some dealers in re-producing English and French specialities for our market. "Reproducing" is a soft word, perhaps "counterfeiting" would more aptly characterize such doings. Some of our trade here seem to regard this sort of thing as a very venial sin. We all know that thousands of gross of that famous English soap "Low's Brown Windsor" have been made here (the quality being, I am bound to say, most vile); and as for "Lubin's" Paris perfumery and soaps, there have been a hundred dozen of the American imitation sold in the States for years back to one of the genuine. Colman's mustard and Crosse and Blackwell's pickles have been imitated here on a large scale, but I am glad to remark that all these practices are decreasing, and in regard to some of the articles have ceased altogether. The use of well-known names to attach to other preparations than those upon which they have become celebrated, is in vogue here, and is most reprehensible. To instance; there are thousands of gross sold annually of "Lubin's Flavoring Extracts" (of lemon, vanilla, etc.) These are made by a prominent New York wholesale drug firm, and they may be found in nearly every one of the retail groceries in the city—some three thousand in number. As all the trade know very well, Lubin of Paris makes no "cooking extracts," and if this is not an attempt to gain a popularity upon his reputation, what is it?

Our label printers supply labels *from regular stock*—not printed to order—of all the great London and Paris perfumery houses, and any chemist can purchase these by the hundred at a trifling cost, and "get up" his own "Guerlain Cologne," "Lubin's Extracts," "Piver's Pomade," "Patey's Cold Cream," etc. Of course the best pharmacists will have nothing to do with this sort of work, but some of the wholesale trade and not a few of the country druggists, I regret to say, are to be found dabbling in it. The law in regard to trade-marks is clearly defined here, and were a few examples made there would be less of this most dishonourable business to report.

It is somewhat to the credit of the representative American perfumery houses—of which we have a number in good position—to find them discontinuing the fabrication of imitations of imported goods, and devoting increased attention to a line of products bearing their own trade-marks. The great proclivity that our people have for pleasant odors makes the perfumery trade one of important proportions here, and in addition to the immense sales of the London, Paris, and Cologne houses, our own "Laboratories" —as they call themselves—are turning out fabulous amounts annually, principally, it must be confessed, a low grade of goods, but in some instances productions of creditable quality. The houses of Glenn, Wright, Phalon, Burnett, Woodworth, and others are all doing a large and annually increasing business. A wag lately stated that "in the city of New York, as in no other city of the Union, perfumery of some sort is sold everywhere except on Change or at an undertakers."

Our chemists are "fixing up" their soda-water apparatus, as the hot season will shortly be upon us. This most lucrative branch of the chemist's trade in America has been developed to a wonderful extent during a few years past. The makers of soda-water apparatus have emerged from obscurity and become large concerns, with extensive "works," and the whole trade has assumed great importance. They are most lavish advertisers in special trade journals.

Our income-tax lists exhibit a number of handsome incomes in the drug trade. Among them that of Mr. George Kemp (Lanman and Kemp) which is put down at over £40,000 in 1870. Mr. Kemp is the proprietor of "Florida Water," as well as largely engaged in the import and export drug trade.

One of our newspapers gives the following item:—"It may surprise some of our readers to know that the oleander, so popular as a yard and house plant, is extremely poisonous. Dr. T. L. Wright, in a communication to the Bellefontaine (O.) *Republican*, says he was called to attend a child a few days ago who had eaten some fragments of an oleander bush that had been clipped off. The symptoms were sudden and violent, and the result nearly fatal. Deathly prostration, sunken eyes, great pallor, incessant vomiting, extreme thirst, and purging were the predominant symptoms.

Phœbe Cousins, of St. Louis, recently gave her views of the ideal marriage thus: "A molecule of oxygen roaming lonely through space, seeking for its mate, but finding none, when of a sudden in some hideous nook it discovers a molecule of hydrogen, when lo! there is a rush, an embrace, and there is neither any more oxygen nor hydrogen, but a diamond drop of dew reposing on the bosom of the lily." After which she added that she herself was a molecule of hydrogen, but the only responsive "rush" was towards the door.

The olive crop in California promises to be by far the largest crop ever raised. The trees are loaded with blossoms and young fruit, and are growing very thriftly, while many hundreds are coming into bearing from the cuttings recently set out. This may be said in favour of the olive, and almond likewise, that it is a never-failing crop. In a very few years we shall begin to ship the products of these trees.

A number of soda lakes have been discovered recently, twelve miles south of Denver, Colorado. The grounds comprise sixty acres, and the water and the soil together have nearly 38⅓rd per cent of sulphate of soda.

INDIGENOUS PLANTS.

THE following list is the completion of Dr. Hamilton's carefully prepared botanical paper, the first part of which appeared in our February number. We have again to acknowledge the *Monthly Homœopathic Review* as the source of the information:—

CICUTA VIROSA.—Poisonous Cowbane. Water Cowbane, Long-leaved Watercress. Long-leaved Water Hemlock.—In ditches and on the borders of rivers; not common. Bedfordshire, Oakley Springs. Cambridgshire Fens, between Ely and Pickwillow; in a creek near the Tiled House on Romney Bank; in the river, about a mile above Trickwillow Bridge. Cheshire, pits near the little Moor, a mile from Stockport; in Brereton Mere; in pool near Nantwich. Cumberland, Keswick; banks of the Irthing at Walton and Irthington. Herefordshire, Hereford, on the river banks, in the walks. Kent, in the running water at Canterbury and Ashford. Lincolnshire, in the East Fen, chiefly on the edges of the narrow channels called rows, which communicate the deeps with each other. Middlesex, near Hounslow; Denham; and in a pond near the road at Hayes. Norfolk, in the river above Norwich; Old Walsingham; about Yarmouth; near Filby Broad, and on Hoveton Common. Northumberland, in a bog at Learmouth, near Cornhill. Notts., in Nottingham Park. Shropshire, in the Pool-dam at Hatton, and in a rivulet near Beldwas; Whiston Marsh; Ellesmere Mere; open pool near Shrewsbury. Somersetshire, in some boggy grounds near Shepton Mallet, and on Burtle Moor; in the Canal near Bathampton. Staffordshire, Kingston Pool, near Stafford. Suffolk, near Temple Bridge, Cavenham; banks of the Waveney, between Eccles and St. Olaves; Oulton Dike. Surrey, Battersea. Yorkshire, by the river at Scroby Bridge. Scotland, in the counties of Berwick, Dumbarton, Dumfries, Edinburgh, etc. *Flowers July and August.*

COLCHICUM AUTUMNALE. Common Meadow Saffron. Tuber Root. Naked Lady. Upstart.—In moist rich meadows. Berkshire, near Appleton and Cumnor. Oxfordshire, near Coombe; Heythorp; Stanton Harcourt; Ashford Mills; between Hardington and Barton, near Oxford; near Filkins and Bradwell. Suffolk, at Little Stoneham. Shropshire, valley of the Corve, near Ludlow. Staffordshire, in the valley of the Trent. Worcestershire, on the banks of the Severn. In the rich meadows of the Itchin, in Hampshire. Yorkshire, near Richmond, etc. *Flowers, September and October.*

CONIUM MACULATUM. Common Hemlock. Spotted Hemlock. Kex. Herb Bennet.—Common in hedges, orchards, and waste grounds, and on rubbish and old dung heaps. *Flowers, June and July.*

N.B.—Distinguished from its allies by its spotted stem, fetid smell, and by the unilateral partial involucres (calyx) and the *waved* ridges of its fruit.

COTYLEDON UMBILICUS. Wall Pennywort.—On rocks and walls, and on old buildings, especially in sub-alpine districts. Berkshire, on walls near Abingdon. Cheshire, at Bidston, and near Knutsford. Cornwall, frequent about Penzance. Derbyshire, Dove Dale. Hampshire, between Southampton and Ringwood. Kent, Tenderton; on church wall at Canterbury, and on Folkestone road. Somerset, old walls at Clevedon, etc. In Scotland, in counties of Argyle, Ayr, and Inverness. Ireland, very frequent. *Flowers, from June to October.*

CROCUS SATIVUS. Saffron Crocus.—Naturalized in meadows, chiefly about Saffron Walden, in Essex, but also in other places. Its fragrant stigmas constitute saffron. *Flowers September.*

CYCLAMEN EUROPÆUM. Ivy-leaved Cyclamen. Sow Bread.—In woods and thickets; rare. Kent, growing in abundance in a wood near Alderdown Farm, near Sandhurst; between Hawkhurst and Newenden, on both sides of the road. Notts., at Langar, near the seat of Earl Howe. Suffolk, on a steep bank in the parish of Bromfield. Ireland, near Drumcondra, *Flowers, April.*

DIGITALIS PURPUREA. Purple Foxglove.—Hedgebanks, woods, and sides of hills on gravelly soil. Common in most counties, but rare in Suffolk and Norfolk. Very plentiful in Hertfordshire, Berkshire, Bucks, and Warwickshire. *Flowers, June to August.*

DROSERA ROTUNDIFOLIA. Round-leaf Sundew. Red Rot. Youth Wort. Moor Grass. Ros Solis.—Bogs and moist, heathy ground; frequent. Plentiful in the lower wet parts of Wimbledon Common. Very common in the Western Highlands, and on all boggy moors. *Flowers, July and August.*

DULCAMARA (Solanum Dulcamara). Woody Nightshade. Bitter-sweet. Felon Wood.—In hedges and thickets in almost every county in England. Rare in Scotland. In Ireland, in the neighburhood of Dublin. *Flowers, June to August.*

EUPHRASIA OFFICINALIS. Common Eyebright. — This beautiful little plant is common on every heath and down, and in mountainous meadows. *Flowers, from June to September.*

EVONYMUS EUROPÆUS. Common Spindle Tree. Prick Wood. Gutteridge Tree.—In woods and hedges. Frequent in England and South of Ireland; rare in Scotland. In Oxfordshire, near Shotover Plantations; on Woodstock Road, between Oxford and Summer Town. In Bedfordshire, near Cople and Apsley. Cambridgeshire, Madingley Wood and Kingston Wood. Cumberland, in Gowbarrow Park, Ullswater. Devonshire, Chudleigh; Moreton; Totness; frequent. Essex, near Woodford. Kent, near Faversham Common. Somersetshire, frequent about Bath. Scotland, the Queen's Park, and near Cragmillar Castle. Ireland, common in the county of Cork; on limestone rocks near Galway. *Flowers, May and June.*

FILIX MAS (ASPIDIUM). Male Fern.—Common in every county in England.

HELLEBORUS NIGER.—Not indigenous, but much cultivated in gardens. The Helleborus Fœtidus often substituted for it.

HYOSCYAMUS NIGER. Black Henbane. Common Henbane. Hogbean. — On waste grounds, by roadsides, on banks and commons, especially near habitations on gravelly and chalky soils. *Flowers, June to August.*

HYPERICUM PERFORATUM. Common perforated St. John's Wort.—Woods, thickets and hedges; very abundant on chalky soils. Distinguished by minute black spots on the lips of calyx, corolla, and often on the leaves. *Flowers, July.*

LACTUCA VIROSA. Strong-scented Lettuce. Cut Lettuce.—About old walls and banks, etc., on chalky soil. In Berkshire, near Maidenhead; Botley, on the road-side. Essex, near Woodford. Hampshire, near Southampton and Netley. Middlesex, World's End, near Stepney; between Blackwall and North Woolwich, on banks of Thames; on Hampstead Heath; and in nearly every county in England. Scotland, near Edinburgh Park; Roxburgh and Stirling. *Flowers, July and August.*

LAMIUM ALBUM. White Deadnettle. Archangel.—Borders of fields, waste places and roadsides, commons throughout England. *Flowers from April to November.*

PRUNUS LAURO CERASUS. Common Cherry Laurel.—Naturalized in this country, and common in all gardens, etc. *Flowers, June.*

LEDUM PALUSTRE. Marsh Ledum. Marsh Tea.—Not a native of England or Scotland, doubtful in Ireland; but it is found in the neighbourhood of Archilhead, on the north-west coast of Ireland. *Flowers, April to July.*

LYCOPODIUM CLAVATUM. Club Moss. Wolf's Claw.—Dry heaths and pastures. Hampstead Heath. Common in Scotland.

MENYANTHES TRIFOLIATA. Common Buckbean. Bogbean. Marsh Trefoil.—In marshy and boggy places; wet meadows, and on the margin of rivers, fords, and wet ditches. Found in every county in England. *Flowers, May and June.*

MERCURIALIS PERENIS. Dog's Mercury. Woods, coppices; look for it in shady places. *Flowers, April and May.*

MEZEREUM. Daphne Mezereum. Common Mezereon. Spurge Olive. Dwarf Bay.—In woods. Very rare. In Berkshire, Appleton Common. Derbyshire, Matlock; Chee Tor. Dorsetshire, in Cranbourne Chace. Durham, Tonslate Hills; South of Sunderland. Gloucestershire, stream side in a dingle above Ebsworth; Fish-ponds, Painswick. Hampshire, in Selborne Hanger; among shrubs of S. E. end, above the cottages. In woods near Andover. Somersetshire, in Brassknocker Wood, near Bath. Staffordshire, in Needwood Forest. Wilts, about Great Bedwyn. Worcestershire, Eastham and Stanford. Yorkshire, in Oldfield Wood, near Ripon; on an island in the Swale. *Flowers, February and March.*

MILLIFOLIUM. (Achillea). Common Yarrow or Milfoil.—Pastures and waysides; very common everywhere.—*Flowers, all the summer.*

NUPHAR LUTEA. Common Yellow Water Lily, Yellow Water Can. Brandy-bottles.—Very frequent in watery ditches, ponds, lakes, and slow rivers. Smells like brandy; hence, probably, with the shape of its seed-vessels, the name Brandy-bottles. *Flowers, June and July.*

PARIS QUADRIFOLIA. Herb Paris. True-love. One-berry. In moist, shady woods and thickets in many parts of England. Rare.—Berkshire, Wytham Wood. Herefordshire, woods near Eastnor Park. Warwickshire, Spernal Park. Headington Wick Copse, near Oxford. Cossey, near Norwich. Middlesex, in the Hanging Wood near Harefield; in a wood bordering Hampstead Heath. Hampshire, Selborne Hanger. Somerset, at Clifton. Scotland, near Dalkeith. Ireland, in the woods about the Lakes of Killarney. *Flowers, May and June.*

PHELLANDRIUM AQUATICUM. Water Fennell. Fine-leaved Water Dropwort.—Ditches and pools. Common. *Flowers, July.*

PIMPINELLA SAXIFRAGA. Burnet's Saxifrage.—Very frequent on dry pastures, and sandy, gravelly, soil, *Flowers, July and August.*

PETROSELINUM SATIVUM. Common Parsley.—Naturalized. Frequent on old walls in the south-west of England. Blarney Castle, near Cork, Ireland. Cultivated in all gardens for domestic use. *Flowers, June and July.*

PRUNUS SPINOSA. Black-thorn. Sloe tree.—Hedges and coppices in many parts of the kingdom. *Flowers, April and July.*

PULSATILLA. Anemone Pulsatilla. Pasque Flower. Wind Flower. In dry, chalky pastures in several parts of England. Cambridgeshire. Hertfordshire. In the meadows bordering the Downs, near Tring. Oxfordshire. Norfolk. Wiltshire. In the meadows around Warminster, etc. *Flowers, April and May.*

Ranunculus Scelaratus. Celery-leaved Crowfoot.—Sides of pools and ditches. *Flowers, June.* All the British Ranunculi flower June and July, and are common everywhere.

Rumex Crispus. Curled Dock.—Very common on every way-side; and waste places near houses. *Flowers, June and July.*

Ruta Graveolens. Common Garden Rue.—Domesticated in this country. *Flowers, June and September.*

Sambucus Nigra. Common Elder—Woods and coppices, frequent. In Scotland, near Ayr. *Flowers, June.*

Symphytum Officinale. Common Comfrey.—Watery meadows, and about the banks of rivers. Found pretty abundant in the neighbourhood of London and surrounding counties. *Flowers, from Moy to September.*

Stramonium. (Datura Stramonium). Common Thorn-apple.—Waste grounds in the neighbourhood of gardens and towns. Not indigenous. Rare. Berkshire, in a meadow near Reading. Bucks., near Salthill, Windsor. Cambridgeshire, Wishech. Cheshire, between Chorley and Chelford. Cumberland, Wallow Crag, Keswick. Derbyshire, Derby and Pinston. Durham, on Sunderland Ballast Hills; near Darlington. Hants., at Ryde, Isle of Wight. Middlesex, waste grounds about London. Norfolk, on the roadside between Norwich and Bungay. Suffolk, on Fritton Heath and adjoining hedges. Warwickshire, near the church at Little Malvern, Wales, in Anglesey. Glamorganshire, about Swansea. Ireland, abundant on the River Lions. *Flowers, July and August.*

Tamus Communis. Black Bryony. Wild Vine. Lady's Seal.—In most parts of England, in hedges on a chalky soil. Not found in Scotland or Ireland. *Flowers, June.*

Tanacetum Vulgare. Borders of fields and roadsides. Very common. *Flowers, July and August.*

Taraxacum Leontodon. Dandelion. — Meadows and pastures. Common everywhere. *Flowers all the summer.*

Teucrium Chamœdrys. (Marum Verum). Wall Germander.—Borders of fields, and on ruined walls. Winchelsea Castle, Sussex. Gateshead, Durham. City Walls, Norwich. Near Forfar. Methven Wood, Perthshire. Near Cork, Ireland. *Flowers, July.*

Urtica Urens. Small Stinging Nettle. Everywhere. *Flowers, the whole summer.*

Uva Ursi. (Arcostaphylos). Red Bear's Berry. Meat Berry. Red-berried trailing Arbutus.—On dry heaths in mountainous and rocky places. Cheshire, on hills between Cheshire and Yorkshire. Cumberlane, Marindale Dale Head, Ullswater. From Grass Moor to Crummock Water. Derbyshire, on Kinder-Scout, near Hayfield. Durham, Cronkley Fell; Teesdale Forest. Northumberland, near Hexham. Shropshire, Devil's Arm Chair; Stiperstones Hills, near Church Stretton. Scotland, abundant on dry, heathy, rocky places in the Highlands and Western Isles. Ireland, very abundant on the limestone mountains, Barony of Burren; County of Clare, and on several mountains in Connemara; at Fair Head, county of Antrim. *Flowers in June.*

Valerian Officinalis. Great Wild Valerian.—Ditches, sides of rivers and moist woods. Very abundant. *Flowers, June and July.*

Verbascum Thapsus. Great Mullein.—Yellow Mullein. —Banks and waste grounds in a light, sandy, gravelly or chalky soil. Very frequent in Middlesex, Beds, Berks, Herts, and other counties. *Flowers, July and August.*

Vinca Minor. Lesser Periwinkle.—Hedges and banks in woods. *Flowers, May and June.*

The Vinca Major is not indigenous, and is a much larger plant.

Viola Odorata. Sweet Violet.—Woods, banks, and pastures. Very frequent in England; very rare in Scotland and Ireland. *Flowers, March and April.*

Viola Tricolor. Pansy or Heartsease.—Very common. *Flowers, the whole summer.*

Messrs. F. Newbery and Sons, wholesale patent medicine venders and foreign agents, 44, and 45, St. Paul's Churchyard, finding that their present premises, through the increase of their business, are quite inadequate for the transaction of their home and foreign trade, have resolved to remove to larger and more commodious premises situate at 37, Newgate-street, adjacent, where they request all letters, parcels, and communications to be addressed to them on and after June 24th.—[Advt.

Pharmacy.

BENZOIC ACID.

Victor Meyer, in the *Annalen der Chemie und Pharmacie*, describes a new method for the preparation of benzoic and other aromatic acids. Equal parts of dry formate of soda and benzol-sulphate of potash were thoroughly mixed and fused over the fire for some time. During this reaction volatile sulphur compounds of a very disagreeable smell are formed. The dark-coloured fused mass is then dissolved in water, acidulated, and then either distilled with water, or better, extracted with ether, which, on evaporation, leaves the benzoic acid behind. For the purpose of purifying this raw product it is dissolved in ammonia, and then treated with boneblack.

IMPROVEMENT IN SPREAD PLASTERS.

Mr. J. W. Worthington, in an inaugural essay, before the Philadelphia College of Pharmacy, suggests the employment of a solution of india-rubber with the other ingredients in plasters which are kept ready spread. A solution is prepared by dissolving an ounce of caoutchouc, cut small, in a pint of benzine. The author describes the following experiment. He prepared a mixture of three ounces of Burgundy pitch, four drachms of yellow wax, two drachms of rosin, and two drachms of lard. Melted and strained. This, when spread and kept two months, became very brittle, and cracked on handling. The same ingredients, with the addition of four drachms of the solution of caoutchouc incorporated when they were in a fused state, possessed the following characters:—Very little tendency to crack, retains its pliability, is more adhesive, and has a beautiful, smooth, glossy appearance. After two months, part of it very cold weather, this plaster retained its pliability. Experiments were then made with officinal belladonna plaster, which resulted in the following proportion being considered most suitable:—Take of belladonna plaster (U.S.P.), seven drachms; liquid gum elastic, one drachm. The belladonna plaster to be melted by a water-bath, and the liquid rubber then added and stirred well until united thoroughly. The odour of the benzine is said to disappear when added in this manner.

BENZOATED OINTMENTS.

Mr. C. F. Bolton, in the *American Journal of Pharmacy*, reports on experiments he has undertaken to obtain a process whereby ointments may be benzoated extemporaneously. He has found the following formula successful:—

℞ Benzoin pulv. (select.)	℥ij.
Ether sulphuric	℥iv.
Ol. ricini	℥j.

Introduce the benzoin into an eight-ounce bottle, add the ether, macerate for twenty-four hours with frequent agitation, pass through a filter, to the filtrate add the ol. ricini, and shake until dissolved; then transfer to a shallow vessel, in order to allow the ether to evaporate spontaneously; lastly, when the ether has entirely disappeared, place in a wide-mouthed bottle ready for use. The result is a soft extract, one ounce, representing an ounce of the benzoin in a state that is perfectly miscible with unctuous substances. It may be used in the proportion of half drachm to the ounce of ointment; it can also be used very advantageously in preparations for the hair, it being very soluble in alcohol, and perfectly miscible with ol. ricini in combination with alcohol, but insoluble in fixed and volatile oils in a free state, It is also freely soluble in chloroform. Alcohol and benzine were experimented with, in the hope that they would answer in the place of the ether. The former was moderately successful, but the extract resulting was darker. The benzine was ineffectual.

[The article from which the above is extracted was the inaugural essay of a graduate at the Philadelphia College of Pharmacy. To the author was awarded the gold medal offered by the Alumni Association to the graduate passing the best examination.]

TINCTURE OF MYRRH.

E. B. Shuttleworth (*Canadian Pharmaceutical Journal*) having made the above according to the *British Pharmacopœia*, turned his attention to the residue of the gum, which was about two-thirds of the original quantity. This consists almost entirely of gum or arabin, as the spirit of 84 per cent., used for percolation, exhausts the myrrh of resin and essential oil, leaving the gum, with the ordinary mechanical impurities, as sand, bits of wood, bark, etc. He utilized this as mucilage, taking the residue of the percolation of fifty-two gallons—the quantity required for fifty wine gallons of the tincture—dissolved it in boiling water, strained, and allowed it to deposit. Twelve gallons of very tolerable mucilage was obtained, which, although unfit for sale, or the nicer purposes of trade, proved an excellent substitute for ordinary paste, possessing unlimited keeping qualities, but scarcely so cohesive as mucilage from gum arabic. The latter property may, however, be given by the addition of a small quantity of molasses, and thus prepared, the mucilage will be found quite acceptable, and, certainly, cheap enough.

While speaking of tincture of myrrh, it may not be out of place to allude to a plan for its preparation, which has, to some extent, come into use. It consists in forming an emulsion of the drug with hot water, and mixing this with alcohol. The resulting tincture is deep-coloured and quite thick, conveying the vulgar idea of *strength.* Strong it is, but not in aroma, or fragrant resin. The practice cannot be discountenanced too strongly, as not only is the preparation quite different from what the *Pharmacopœia* requires, but the product is a sticky abomination.

EXTRACT OF VANILLA.

The same writer finds a more successful method of making the above than the usual method of rubbing up the pods with sugar, to be to grind them up, with the addition of a liberal amount of clean, broken glass (old bottles). The powder may be made of almost any degree of fineness, and the ground glass assists materially in the percolation. Fifty pounds of vanilla may be completely exhausted by twenty gallons of spirit.

LIME IN LARD.

The same writer also reports a clever adulteration of lard. The lard is melted, and from 2 to 5 per cent. of milk of lime is added. A saponaceous compound is formed, which is not only pearly white, but will allow the stirring in, during cooling, of 25 per cent. of water. So much for appearances.

BRAGG'S CHARCOAL LOZENGES.

Mr. BRAGG may almost be said to have a vested right in charcoal as a remedial agent, so closely has he allied his name with its virtues. He now enters into competition with himself, producing lozenges as well as biscuits. In our judgment the latter is the preferable vehicle for the administration of charcoal, but this is purely a matter of taste. Some people will be certain to differ from us, and they have as much right to be gratified as ourselves.

JUDSON'S CURRY.

We recommend to chemists and druggists the sale of a new sixpenny bottle of curry powder, which is itself of excellent quality, and which, on account of the novel way in which it is put up, will be certain to extend the use of this wholesome condiment. Judson's Curry Powder is supplied in bottles, or rather cruets, not at all discreditable to the table, and the idea is that they may be used to sprinkle some of the powder over the meat on the plate. The addition of a portion of curry to the noonday chop adds a new charm to city life, and without a doubt aids the digestive organs. Messrs. Judson's new venture is worthy of a hearty welcome, both from physicians and epicures.

NEW FUNNEL.

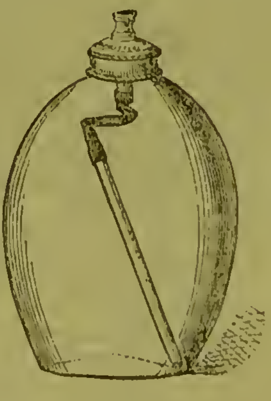
Maw's Registered Filtering Funnel challenges the attention of all pharmaceutists, and is certain to command their approval. The funnels generally in use are made with a few ribs round the sloping portion, the object being, of course, to prevent the filter from sitting closely to the funnel all round. The new funnels are constructed of an extra thickness up to within about an inch of the top, and all round this thicker part is fluted with narrow channels. If our explanation is clear enough the reader will understand that while a perfect support for the filter is thus provided, a far greater area of filtration is also presented than in the old funnels. Practically it is found that by using these funnels the saving of time is very considerable.

MAW'S REGISTERED TUBE CLEANER.

Although an abundance of ingenuity has been devoted to the construction of feeding-bottles, especially in regard to their shape, it is now almost for the first time that we have to record any novelty in the fittings included with them, although in certain respects some improvement has long been required. The brushes which have been in use hitherto for cleaning the tubes have been very unsatisfactory. They do not thoroughly clean the tubes, and they are apt to leave behind a part of the bristles, which may afterwards come up with the food into the teat. Messrs. Maw's contrivance to remedy this, although very simple, is very perfect. Instead of the brush at the end of the wire we have a little flat piece of india-rubber about an inch long, fixed at right angles with it. When the wire is drawn through the tube, pulling the india-rubber after it, the latter necessarily forms itself into a perfect cylinder, which fills up the tube and wipes it out as thoroughly as it is possible to be done. The cleaners answer for pipes quite as well as for feeding-botttles. They are sold loose, and we believe are supplied with all descriptions of Maw's Feeding Bottles.

MAW'S REGISTERED FLASK.

Without any elaborate machinery of screw-caps or valves, Maw's new flask presents a shilling article which fulfils its purpose admirably. The engraving will show the principle on which it works. It is simply that an india-rubber tube connects the glass one with the ivory mouth-piece. By merely drawing out the ivory, the liquid in the bottle will flow out readily enough, but when the tube is pushed back its exit is entirely prevented. The flasks are made of coloured glass, and are a good shilling sundry, apart from the novelty in their construction.



PASCALL'S REGISTERED AROMATIC LOZENGES.

After smoking, and on other occasions, these lozenges are excellently adapted for sweetening the breath. They are good specimens of the art of confectionery, are put up in neat little twopenny boxes, and chemists will sell them freely.

Medical Gleanings.

NOBODY supposes that either of the Medical bills now before Parliament have any reasonable prospects of success. The one brought in by Dr. Brady is known as the bill of the Irish College of Surgeons, and it is said to embody the views of the Reform Committee of the British Medical Association. The other, under the sponsorship of Dr. Lush, is the attempt which the conductors of the *Lancet* have made to immortalize themselves by forcing certain journalistic views into the statute-book. Both bills are set down for a second reading on the 14th of June, but it is rumoured that in each case the riders will decline the fence.

Doubtless we may take it as an axiom of political science that it is right to interfere with the liberty of an individual for the sake of the public weal. But we could hardly state a more dangerous maxim. None but the most experienced, and the most honest of statesmen, could be entirely trusted with the possession of such a weapon. We are each of us individuals, and the individual is very apt to forget his corporate capacity when his personal interests run counter to those which would only benefit him with the rest of the community. Considering this condition of things, it is evident that the future of vaccination is a subject which demands the most serious attention of Government, society, and medical men. There is a committee of the House of Commons now receiving evidence on this subject, and though we do not anticipate such a result, it is not impossible that the suspension or abolition of compulsory vaccination may be recommended. We confess that we should see that end with much regret. We look at it from a public point of view, and we confess that the position is one of great difficulty. On the one hand we have a disease, perhaps the most frightful known in modern times, which without a doubt may be ameliorated, if not altogether eradicated, by a very simple means. At this date we have no conception of the horrors of small-pox as they existed before Jenner's great discovery. That the amelioration so noticeable is due to vaccination chiefly, if not entirely, is, we think, plain to nearly every competent observer. On the other hand, there is the Englishman's natural dislike to compulsion in any form, and there is the far more than sentimental grievance that sometimes diseases, scarcely less repulsive than small-pox, may have been, indeed have been unquestionably, propagated by means of this very prophylactic. What cares the mother who has lost a loved child because, as she believes, the law compelled her to have it vaccinated—what cares she for maxims of political economy? And yet it is not difficult to see that she of all persons is the most unfit to form a correct judgment on a subject on which she is naturally so prejudiced. We rejoice to see, however, that medical men do not continue to blind themselves to the serious facts and evidence against vaccination. We notice especially an important paper read by Mr. Jonathan Hutchinson at the Royal Medico-Chirurgical Society, in which he proved from an examination of a most remarkable case, that syphilis might be communicated by vaccination. Eleven persons in one house of business were vaccinated from an apparently healthy child, which, however, afterwards appeared to show syphilitic symptoms. Nine of these were inoculated with the syphilitic poison in consequence of the vaccination. This case, as was acknowledged even by Mr. Simon, who spoke in the discussion which followed the paper, was clearly proved and traced. But it was also proved, and Mr. Hutchinson laid especial stress on this fact, that in taking the lymph from the child all the vesicles bled. And here, it was believed, lay the foundation of the disaster. Whether that be so or not, there is one point of satisfaction which we can find, in the fact that medical men are willing to admit that vaccination *may be* dangerous. This established, there is good ground for hope that scientific investigation will follow, and in the end a more perfect system adopted from which the present danger shall be entirely eliminated.

We copy from the *Medical Times and Gazette* an extract from a medical report presented to the Lambeth guardians. It proves, at any rate, that a poetic mind can invest even the gloomiest subjects with some sort of beauty. The writer rhapsodizes thus:—"The dark, murky, variolous cloud still hovers o'er our great city, and in our favoured parish. The envenomed breeze has been fatal. One sickens at the thought of our doors being emblazoned with the red cross; at the watchers keeping us prisoners; at the desperation and despair, and the death-bell. 'Tis true there are antagonistic powers in nature, but there is one Supreme Power above all, and that power instructs a Jenner to mitigate and ameliorate the sufferings of His creatures. Truly, the cloud still hangs heavily over us, but it has a silver lining, and even now the benign rays of the rising sun are tinging the edges with resplendent beauty. May the glorious rays of that sun soon shine into the hearts and homes of our native land, and fill us all with hope and happiness, and joy and gladness."

At the meeting of the Medico-Chirurgical Society referred to above, a rather warm passage-at-arms took place between Mr. Brudenell Carter and Mr. Simon. The former stated, in the course of some remarks, that the lymph supplied in tubes from the Public Vaccine Establishment was often inert, and sometimes mixed with spittal. Mr. Simon seemed to think that this was a reflection on the public department over which he presides, and repudiated it in terms which somewhat exceeded Parliamentary customs of speech. Mr. Carter replied that on a particular occasion, struck by the inertness and peculiar character of some lymph in tubes, he had examined it microscopically, and found what appeared to be buccal epithelium and starch granules. (It is said, by-the-by, that some vendors of vaccine lymph fabricate the article out of saliva and tartar emetic or croton oil.) The *Medical Times* is right in the remark that Mr. Carter should have complained specifically at the time, and the question would doubtless have been sifted. It is hardly fair on Mr. Simon to make complaints of the way in which he conducts his business without giving him the opportunity of disproving them, or justifying himself. But if it were not that Mr. Simon is an exalted personage, the very same remark would apply to his complaints of the manner in which chemists and druggists transact their business.

The death of one of the most eminent German physicians is announced. Dr. Oppolzer, the Clinical Professor of the Vienna School of Medicine, died on the 16th of April last. He was beloved and reverenced by his patients, as well as by his students, and his death has caused a great gap which it is somewhat difficult to fill up satisfactorily. He himself was a most ardent lover of medical science.

The following anecdote is from the *New York Medical Gazette*, and describes an incident which occurred in an American court lately:—"The case in point was this: Mr. A—— sold a colt, as a gelding, to Mr. B——, which colt had had but one testicle removed, the other remaining within the cavity of the abdomen. The veterinary surgeon who had castrated the animal was sworn, and, on his cross-examination, stated the following interesting features in the anatomy of the horse:—Attorney: What are, and where are the varicose veins found? Witness: I don't know, but I can tell where the bellicose veins are. Attorney: Where are they? Witness: Close to the belly. Attorney: What is the scrotum? Witness: I am not quite certain, but I think that it is the film that covers the teeth during infancy. Attorney: Have you ever made any examinations in the abdominal regions? Witness: No; all of my examinations have been made in Broome County. Attorney: That is sufficient.

The medical profession is particularly noted for its modesty, and to this we must attribute the fact that every one does not know that the inhabitants of the civilized world have now a better chance of longevity than they had a century ago. The *British Medical Journal* gives some statistics on this point, which are peculiarly interesting.

The average rate of mortality in England and Wales was, in the first forty years of the eighteenth century, 340 in 10,000 living; from 1821 to 1860, it was 207 in 10,000 living. From a comparison of ancient and modern longevity, it appears that in the middle of the nineteenth century, the life of all classes in England and the United States was 50 per cent. larger than that of the best among the Romans at the beginning of the third century. Many causes have combined to produce this cheering result; and among them may certainly be included an improved treatment of disease. In the practice of midwifery, there has been signal improvement during the last 200 years. It has been shown from the mortality bills of London that, for twenty years ending in 1680, 1 in every 44 delivered died; while, for twenty years ending in 1820, only 1 in every 107 died. Thus the number of parturient mothers lost during the last years of the seventeenth century, was more than double the number lost during the first years of the nineteenth century. In St. Bartholomew's Hospital, London, from January 1st, 1862, to December 31st, 1868, there were 5,734 deliveries, with but 21 deaths, being 1 death in every 273 delivered. It is fair to infer that the medical statistics of London, in this matter, will not differ materially from those of other cities and towns in Europe and America.

This is cheering to the public, and encouraging to the profession. With still more vigorous legislative sanitary improvements, the average duration of life may doubtless be increased still further; and these, let it be remembered, not only increase its average duration, but advance its average happiness.

THE TREATMENT OF GONORRHŒA.

WE extract from the *Lancet* the following abstract of a lecture delivered at University College Hospital by Berkeley Hill, M.B, F.R.C.S. Mr. Martindale's formula for a copaiba jelly (printed as a footnote) is worthy of an extensive trial. It will be noted that Mr. Hill does not speak favourably of the employment of permanganate of potash in the form of injection, which has been highly lauded by other authorities.

Introducing his subject by advising his audience never to encourage a tone of levity in speaking of these diseases, and, in order to learn speedily what is the matter, always to examine their patients methodically, the lecturer notified his intention to bring before the class examples of the three leading venereal disorders—namely, gonorrhœa, sores, and general syphilis, as far as regards the eruptions on the skin and mucous membranes. Several patients were brought into the theatre to exemplify the ordinary varieties of acute urethritis in the male. The symptoms and anatomical characters of the disease were described, and the modes of treatment applicable to the various forms were detailed. Severe abortive methods, if used at all, must be resorted to only in the very earliest stage, before the discharge had come; but their adoption was strongly deprecated. If attacked in the first two days, a discharge can often be cut short by hourly or two-hourly injections of half or quarter-grain of nitrate of silver, of half a grain of sulphate of zinc or tannin, to the ounce of water. To use this, the patient must keep quiet in bed or on a sofa, and combine with it the treatment more suited for an inflammation in full progress. For such early cases Mr. Durham's elastic bottle and vulcanite nozzle injector is very suitable. By this the lotion or stream of warm water is thrown from the syringe from behind forwards to the meatus, so that the whole diseased part can be flushed out freely. With this exception, the time for injection comes when inflammation subsides. During the stages of increasing irritation the patient should comply, as nearly as his avocations will permit with the following conditions: Perfect rest; tepid baths, immersing the whole body for half an hour or an hour, twice daily. He should take, every four or six hours, a saline draught, such as the following: Two scruples of bicarbonate of soda, two scruples of white sugar, and two drops of essence of lemon, in six ounces of water. If constitutional disturbance come on, a saline containing one-fourth or one-fifth of a grain of tartrated antimony should be given until the skin grows moist and the pulse soft. Severe pain in the groin or perineum calls for six to eight leeches, repeated even the same day if the pain return. The parts must be kept well supported, very clean, and enveloped in warm wet rags. Scalding is best relieved by removing wine, beer, coffee, asparagus, and other irritants from the diet, by diluting the urine with frequent demulcent alkaline drinks, and by immersing the penis in a cup of ice-cold water while the bladder is evacuated. Heat sometimes answers better than cold; for this, apply very hot sponges on each side of the penis while the urine flows. Let both be suggested; but cold injections into the passage do more harm than good. When the organ is semi-erect and turgid with extreme congestion, a fifth of a grain of morphia injected under the skin at bedtime, or a suppository of one-third of a grain of morphia and two grains of belladonna extract relieve very much. These are also the most effectual remedies for chordee.

When the acuteness of the inflammation has passed, the time for checking the discharge has arrived. For this the so-called specifics have greater success the more carefully the right moment for their use is chosen. They may be given when the scalding is gone or nearly so, when the discharge is plentiful or greenish-yellow, and when the redness has greatly subsided. But they should never be employed, however long the discharge has continued, if the scalding is still severe, if the glans is still swollen, if the mucous membrane is of a dull violet-red, and if the discharge leaves on the linen large grey stains with a yellow centre. In these cases keep to the alkalies and warm baths. Specifics comprise copaiba, cubebs, oil of sandal-wood, tar, balsams of tolu or Peru, Canada balsam, turpentine, etc. The latter are seldom used, and are probably only of service so far as they resemble copaiba. Several modes of giving copaiba were described; the quantity to be taken in twenty-four hours, by small frequent doses, rather than by two or three large ones, being from one to three drachms. Samples of capsules, mixtures, and pastes of copaiba were shown; and a novel French preparation—a jelly—was handed round, which Mr. Hill finds patients take very readily. The specimen was prepared by Mr. Martindale, dispenser to the hospital, who has improved the formula for its preparation.* It is a bright jelly, almost as firm as calf's-foot jelly, very attractive by its rosy-red colour to the eye, and not repulsive to the palate, its flavour being masked by peppermint. As it contains 75 per cent. of copaiba, large quantities can be taken in a small bulk. If a piece as large as a filbert be rolled in wafer-paper, it can be swallowed without being tasted at all. The after-effects of nausea, diarrhœa, etc., are not more if so frequent as from other forms of copaiba. These evil effects, besides the rare chance of hæmaturia, demand caution in the use of copaiba, in patients trying it for the first time. Cubebs, better suited for old chronic discharge, should be given as the fresh powder; the oil, and even the etherial extract, are of doubtful value, for it is said that the virtue lies wholly in a resin that is with difficulty separable. Three to six drachms should be given in the twenty-four hours. To oil of sandal-wood, which had been extensively tried at the Lock Hospital, Mr. Hill could not attribute any advantage over copaiba, though now and then it could be borne when the other could not. Dr. Henderson has suggested the best formula—viz.: Oil of sandal-wood, one ounce; rectified spirits of wine, two ounces; oil of cinnamon, twenty-five minims; one or two drachms three times a day. Or the oil may be administered in capsules. Injections should be used in the same stages as copaiba. Various mineral and vegetable astringents were enumerated, and the following rules laid down as applicable to all injections:—The bladder should always be voided before injecting the urethra, both to sweep out the mucus and to allow a long interval for the astringent to lie in contact with the mucous membrane. Every injection which causes more than a few minutes' smarting or heat is too strong, or not of the right sort. Injections should be used at least thrice daily, and usually five or six times; and, beginning with weak solutions, they should be strengthened every two days until the discharge stops, and then discontinued by easy stages. When the discharge is abundant, the injection should be thickened with mucilage, and rendered less piquant by adding liquid extract of opium or extract of belladonna. Mr. Hill remarked that permanganate of potash as an injection had been put to rather extensive trial at the Lock Hospital with all kinds of discharges, but very few of the patients had derived benefit from it. Most were made worse, and some complained rather vehemently. It was suspicious that a considerable number of the patients so treated did not appear a second time. Either their disease was cured off-hand, or they were so little enamoured of the permanganate that they declined a second trial. A variety of urethral syringes were shown, those of unsuitable pattern being pointed out, and the mode of instructing patients in their use described. A new one, constructed by Mr. Hawkesley, of Blenheim-street, Bond-street, for patients to carry in the pocket, with a small supply of lotion, was shown. It resembles a funnel-shaped drop bottle, about three inches long, terminating in a nozzle below, and closed by an india-rubber diaphram above. The syringe is easily filled and emptied by alternately depressing and elevating the thumb on the elastic cover, and about two drachms can thus be drawn from a bottle and thrown into the urethra in a few moments. The limited trial to which this syringe has been yet put makes it necessary to speak with caution, but it has proved very useful in several patients' hands. After describing the leading concomitants or consequences of urethritis, Mr. Hill concluded by warning his hearers not to suppose that every case of gonorrhœa, either in men or women, was set up by a specific contagion. Perhaps ninety out of every hundred are so; but the most efficient predisposing cause—one seldom absent in those affected—was any violent irritation of the urethra, such as prolonged sexual excitement, alcoholic excess, and particularly the use of so-called "preventive" injections immediately after coitus. This was stigmatised as a very dangerous procedure. With such predisposing causes urethritis might arise from contamination with almost any disordered vaginal discharge without any specific contagion.

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* This is Mr. Martindale's formula:—Take of thick copaiva eight ounces; powdered sugar, four ounces; honey, (not crystallized), four ounces; distilled water, five drachms; oil of peppermint, one drachm; roseine, one-tenth of a grain (dissolved in twenty minims of water). Put the honey, sugar, copaiva, and water in an evaporating dish. Keeping it well stirred, heat the mixture gently till it boils, and continue the agitation and ebullition about five minutes. In the first part of the operation two distinct strata are formed; the upper, the copaiva; the lower, the honey, etc. As the water is evaporated, numerous bubbles of steam are given off just as the whole becomes a homogeneous jelly. When it has partly cooled stir in the roseine and oil of peppermint. When well made it should resemble raspberry jelly. Should this very minute quantity of roseine (one of the aniline pigments) be objected to, an ammoniacal solution of carmine gives a very good colour.

MEDICINE IN CHINA.

THE following remarks occur in Dr. Dobell's "Reports on the Progress of Medicine." They are contributed by F. Porter Smith, M.B., of Hankow:—

"The medical system of China is like a penny-piece, it has a head and a tail, both very plainly superscribed, with a heavy, thick mass between them—the substantial support of both—not worthy of the name of a body. There is, on the one hand, the great medical college at Pekin, which is really the office of Imperial physician put into commission; and, on the other, the profitable calling of the druggist, whose shop is always the smartest in the street, exercised all over the empire with much dignity and more profit. Between these two terminal points, of not very elevated position, there is a long line of disorderly representatives of the 'noblest of professions,' who practise upon the people of China 'the vilest of trades.' These ignorant, mercenary practitioners divide themselves into the 'literary,' the 'hereditary,' and the 'knowing' doctors.

"There are as many as thirteen specialities of practice allowed by the Pekin College of Physicians, as it is called by some; but the departments of external (surgery), internal (medicine), ophthalmic, female, infantile, and small-pox practice, are the most frequent divisions of the medical function, leaving out the travelling quacks.

"There is alo a division, recognised by that excellent digest of law, the Tartar code, into the 'ordinary' or general practitioner, and the 'notable' or physician. There are midwives, who have the sense to confine themselves to their plain duties of 'receiving the born,' as their name signifies in the Chinese vernacular. There is no teaching or training or any qualification but presumption required of those who essay to heal the sick man in China. A bundle of prescriptions, and the hereditary possession of secret and empirical methods, are the surest grounds of success in the medical line, in populous and credulous China. The power of looking grave over the dignified operation of 'regarding the pulse,' as they call it, combined with the plentiful use of terms drawn from the dual philosophy of the *Ying* and the *Yang*, are important accomplishments.

"Any foreign student who devotes his leisure to a brief study of the pharmacology, which is the great branch of their medical literature, may puzzle the greatest wiseacre of the whole lot of Chinese doctors. And yet it would be very unwise, unkind, and untrue to say that these men, ignorant of the correct anatomy of the body, to say nothing of other sciences, are altogether without availing themselves of the splendid resources of a varying climate and a vast country, which provide a copious materia medica; they secure the relief or euthanasia of many of their faithful patients. Chary in the use of mineral and metallic preparations, which they nevertheless know how to prepare with some skill, they stick to the safer remedies of the vegetable kingdom, which rules so royally over all their empire. Cautious, like all Oriental peoples, in invading the mortal territories of the human system, they bring to bear all their force upon the safe surface of the body, which they pierce with needles, burn with lamps and moxas, and scarify with rude cupping instruments. Some few are bold enough to use the dreaded knife, and bleeding, incision of abscesses, and removal of growths, have been known to be attempted with some deserved success. Malpractice is provided against by the Tartar code, which inflicts temporary or perpetual prohibition from practice, upon the finding of such a verdict by medical assessors. Instances of vexatious actions at law against bold and enlightened practitioners who have been unsuccessful in their departure from routine have come under the writer's notice. Veterinary doctors have been in existence for 3,000 years in China, and they possess a formal literature. We even hear of statistics of cattle plagues being kept at that early period. As to the public medical service, there are doctors attached to the staff of general officers, but no regimental appointments. There is a medical mandarin, of the ninth rank, connected with each prefecture, and another of still lower grade, connected with each district-city. These are a sort of medical tutors, who often undertake, in addition, the medical charge of the jails, or they are locked up with the students in their protracted triennial examinations. The oldest medical works were written by the early monarchs, *Shin-nung* and *Hevang Ti*, of alarming antiquity. The best work on Chinese medicine is the 'Pun Tsau Kang Muh,' a work in fifty-two volumes, with three volumes of plates. This is, however, above the comprehension of the present race of practitioners. It was written by *Li-Shi-chin*, a district magistrate. A portion of its contents will shortly appear in a small work on the 'Chinese Materia Medica,' by the writer of this brief notice."

Dentistry.

THE QUEEN'S DENTIST ON EXTRACTION.

WE have received from the publishers the Second Edition of Dr. Smith's "Handbook of Dental Anatomy and Surgery."* As a condensed manual of information suitable to those practising or desirous to practise the art in any or all of its branches, we know of no work so well suited. The new edition contains a chapter added, on "Artificial Teeth, their Mechanism and Management," which seems practical and instructive.

We shall present a useful article, and give a good idea of the Author's clear method of treating his subject if we extract the first part of the chapter on Extraction. Concerning this we are told—

"The principal points to be attended to in extraction are the proper seizure of the tooth, and its detachment from the walls of its socket in that direction where least resistance is likely to be met.

"In seizing a tooth, whatever instrument be employed, the part upon which a hold is taken must be of sufficient strength to withstand the force necessary for dislodging the fangs. In order to obtain such a sufficiently strong portion of a decayed tooth, a part beyond the decay must be sought for. As the decay, however, frequently extends so deeply that it encroaches on those parts lying deeper than the neck of the tooth—as where the whole crown is entirely gone and a deep cavity still exists in the remains of the tooth left in the gum—the part to be grasped by an instrument will lie beneath the margin of the gum, or even that of the alveolus. The instrument must consequently be thrust, and be of a shape to be thrust with considerable force within these structures, until it reaches a firm and sound part of the tooth, and there be made to grasp it securely, but cautiously. In reaching this part some difficulty will occasionally be met with. Where the decay has advanced on one side,—or it may be on more than one side,—below the level of the alveolus, the instrument, instead of fixing itself beyond the decayed cavity, will be very apt to slip into it, and thereby break down the remains of the tooth. And again, when the alveolus is of dense and hard consistence, or where its walls are very thick, as is often the case in the neighbourhood of the lower wisdom-teeth, it often becomes a matter of great difficulty to insert an instrument between the surface of the fangs and the socket enclosing them. Where the walls, again, are thin but dense, and firmly attached to the fangs, they are, on the other hand, apt to be seized along with the tooth, and to increase the difficulty of its removal.

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* "Handbook of Dental Anatomy and Surgery." By John Smith, M.D. etc. Second Edition. London: Churchill.

"The detachment of a tooth from the alveolar walls surrounding it should, as has been already said, be made in that direction where least resistance may be expected. A tooth cannot always be drawn perpendicularly from its socket. Except in occasional instances of single-fanged teeth, the roots converge or diverge, or are bent in such a manner that they would be broken across before they could be removed by a straight pull. Moreover, even when the fangs are single, and not at all bent or distorted in any way, the firmness of their attachment is so great, that the amount of force which would be required to dislodge them by a straight pull would be more than could generally be applied by the hand, and would be unnecessarily severe for the patient, as it would be injuriously diffused over parts at a distance from the tooth to be removed. It is, of course, impossible to tell beforehand what direction or what irregularity the fangs of a tooth may possibly assume, so that, instead of attempting to take such minor details into consideration, it will be found more expedient to take advantage of some general characters which may be said to be universally present in the conformation of the teeth and their containing alveoli, and to conduct their extraction accordingly.

"The fangs of all the teeth are, as has been previously described, a little broader at their external than at their internal edge or border, consequently they may be moved outwards much easier than inwards. Again, the external wall of the alveoli is much thinner and weaker than it is internally, consequently the external wall yields much more readily than the internal one. And, coupling these two facts, it will be seen that a tooth will be much easier dislodged by a force applied in an outward and downward, or in an outward and upward, direction in the upper or lower jaw respectively, than by any other mode. There is, however, an exception to this rule, and that is in the case of the lower wisdom-teeth; the external plate of the aveolus being in their case very much increased in thickness by the strong ridge passing down from the coronoid process of the lower jaw. As these teeth, however, are comparatively small and not generally very firm, this disadvantage is so far counterbalanced.

"Keeping these facts in remembrance, the extraction of any tooth becomes much simplified, and the form of instrument most suitable for the particular case can easily be selected. Where all or most of the crown of a tooth remains intact, extraction ought to be performed with forceps. The blades of such forceps must be adapted to the particular tooth in two ways,—first, they must be so bent as to reach it easily; second, their edges must be so shaped as to be easily inserted within the alveolus. No one pair of forceps can possibly be thus adapted for all teeth,—the great variety in size, form, and situation of the different teeth rendering this impossible; and although all teeth *can* perhaps be got out with a bone-pliers, or even with a common bradawl,—a mode in which the resurrectionists used to practise with profit and success,—yet such methods of extraction are necessarily severe and imperfect. Five pairs of forceps will be found serviceable for most purposes, and fewer will not. These are a straight pair, and a pair with the blades nearly at right angles with the handles, both of which will be required for upper and lower roots and single-fanged teeth; a pair adapted for the lower molars, and two pairs for the upper molars—one for the right and one for the left sides. Many other forms would be desirable, and may be collected, but these five pairs will be found absolutely necessary. It has been stated that the blades at their extremities should fit that part of the tooth they are intended to grasp. In this way, it will be seen, that for single-fanged teeth these blades will merely require to be adapted for the oval form presented by a transverse section of such fangs—hollowed out, in fact, so as to apply themselves more closely to their surface. For multiple-fanged teeth, the forceps must also be, on the same principle, adapted to the form of the surface to which they are to be applied. One pair will be found to answer for the double-fanged molars of the lower jaw, but for the three-fanged molars of the upper jaw two pairs will be necessary, as these three fangs are always so placed that two of them are next the cheek and one towards the palate; consequently the forceps which would fit one side will not at all fit the other. With this number of forceps properly constructed, almost any case of extraction may be undertaken where forceps can be used at all.

"But there are cases where forceps are unserviceable. In many instances where stumps are causing irritation, or require removal, they are so far decayed as to be altogether beyond the reach, or too friable to admit of the use, of any grasping instrument. In such cases recourse must be had to what is termed the lever, elevator, or tooth-punch. This most useful instrument exists under a variety of modifications, but in all its principle consists in an instrument terminating in a strong spoon-shaped or sometimes spear-shaped blade, from a quarter to fully half an inch long, intended to be thrust down between the stump and its containing socket, wherever a proper purchase or fulcrum can be obtained, and by which, in the manner of a lever, the remains of the tooth can be extended from the alveolus. One or more of these instruments ought always to be at hand in every case of tooth extraction; and their mode of use is so simple, that to attempt describing the infinite variety of modifications which may be followed in their application is unnecessary. The chief point to be attended to is, that such instruments be not allowed to slip, as considerable injury might thus be done to the cheeks, tongue, or other structures within the mouth.

"Another instrument, formerly much more employed in tooth extraction than it is now, is the key. This instrument, from the immense power possessed by it, is liable to abuse in its application. Its form is too well known by all who are likely to be interested in these remarks, for any description of it to be here required. Suffice it to say, that when judiciously handled and restricted to such cases as really demand its use, the key is of very great service indeed, and to discard its employment altogether, would be relinquishing an instrument which, in certain cases, no other could replace for simplicity and effectiveness. The cases in which the key is principally useful are those where the forceps incline to break down the remainder of a tooth without obtaining a sufficient hold for its removal, and where, on the other hand, the elevator would be applied at a great disadvantage for want of sufficient purchase. Such a case may be exemplified by the circumstances of the remains of a molar tooth, upper or under, requiring removal, while as yet not only firmly impacted in the jaw, but tightly jammed between the adjoining sound teeth, especially where the decay has been extensive and deep on one or other side of the neck of the tooth, leaving the outer or inner wall tolerably sound. In such a case, by fixing the claw on the sound side of the tooth, and turning it out in the opposite direction, it will in most instances be removed more easily and expeditiously by the tooth-key than by any other instrument whatever."

Homœopathy.

THE MANUFACTURE OF DISEASES.

SOME homœopathic doctors in America are getting up a complete repertory of homœopathic practice, and in a recent number of the *Medical Investigator*, published in Chicago, a sample of the work appears. A chapter is presented, entitled "Appetite and Hunger," and certainly, if the whole is carried out on a similar scale to this portion, subscribers will have no reason to complain that the adjective in the title held out any false promise to the bewildered practitioner. Without the smallest attempt to make a sensational extract we clip an inch out of the middle of this sample chapter, merely premising that the sentences are supposed to name diseased symptoms, and the abbreviations in italics name the medicines which are indicated.

Gnawing hunger: with empty sensation in stomach. *Senega.*
Greasy food: repugnance to. *Carbo an.*
Ham-fat: longing for. *Mez.*
Hasty eating, with inclination to hate everything around him. *Plat.*
Herring: longing for. *Nit. ac.*
Headache, from eating a little too much; hunger soon satified. *Lyc.*
Honey: longing for. *Sabad.*
Hot: can not eat anything. *Ferr.*

Among the curiosities of this complete repertory we find a few other lines, which can hardly have been inserted by the author without a smile. For instance, "Eggs, longing for. *Calc. C.*," or, in English, the remedy for a desire for eggs is, not as we should have guessed, to provide one or more, but to give the patient an infinitesimal dose of egg-shell. That is asking for bread and getting a stone with a vengeance. "Aversion to bread" is to be cured by *Hippo. M.* The idea is evidently derived from recent French experiences. "Aversion to food in general" is to be attacked by the following broadside of physic:—*Acon.*, *Ant. c.*, *Arn.*, *Ars.*, *Carbo an.*, *Cham.*, *Cocc.*, *Colch.*, *Ipec.*, *Mang.*, *Nux v.*, *Opii*, *Petrol.*, *Platina.* A "longing for brandy and chalk" (!) which we should say is most undoubtedly a disease of the first magnitude, should be treated by *Nux. v.*; and a "great desire for coal," by *Cic. v.* Ipecac. is recommended, if a "desire for dainties" should manifest itself; and rhubarb is required whenever there is an "aversion to coffee if not well-sweetened." Intending subscribers to this decidedly original work may remit ten dollars to J. G. Gilchrist, Owatonna, Minn. (U. S.)

We have no wish to discredit homœopathy; on the contrary, we should be only too glad to see it prove a universal healer. But discredit is brought on the system by its too enthusiastic advocates, who let their opinions run away with their reason.

Corner for Students.

CONDUCTED BY RICHARD J. MOSS, F.C.S.

The chemical formulæ employed in this section are based upon the new system of atomic weights, unless the use of the older system is specially indicated. In the *British Pharmacopœia* the symbols corresponding to those adopted here are printed in heavy Clarendon type. The new editions of Fownes's *Manual of Chemistry*, and Attfield's *Chemistry: General, Medical, and Pharmaceutical*, supply the data required for calculations, and are recommended as text-books.

QUESTIONS.

First Division.

I. Alkaloids.—Describe the behaviour of quinine, morphine, and strychnine, respectively, with water, ether, alcohol, and chloroform as solvents.

II. Calx Chlorata, *B.P.*—Explain the officinal volumetric test for the strength of this substance.

III. Gas Volume.—How many litres of chlorine at 743 m. m. pressure and 12° C. would be required to produce hydrochloric acid with the hydrogen evolved by the action of dilute sulphuric acid on 13 grammes of zinc? (One litre of chlorine at the standard temperature and pressure weighs 3·1734 grammes.)

IV. Gas Volume.—How many cubic feet of air containing 23 per cent. of oxygen, by weight, would be required for the combustion of 1 cwt. of coal containing 86·37 per cent. of carbon, and 6·24 per cent of hydrogen? (100 cubic inches of air weigh 31 grains.)

IV. Volumetric Solution of Iodine, *B.P.*—What is the percentage of sulphur dioxide in a solution, 73·5 grains of which, when mixed with a little mucilage of starch, do not acquire a permanent blue colour with the volumetric solution of iodine until 930 grain measures of the latter have been added?

V. Specific Gravity.—Required, the weight in kilogrammes of 20 metres of copper wire measuring 1·5 millimetres in diameter? A piece of the wire, weighing 1·12 grammes in air, weighs 0·995 gramme in water.

Second Division.

I. Nux Vomica, *B.P.*—By what reactions may the two principal alkaloids found in nux vomica be distinguished?

II. Volumetric Solution of Nitrate of Silver, *B.P.*—What is the percentage of hydrocyanic acid in a solution, 324 grains of which, when rendered alkaline by the addition of sodium hydrate, require the addition of 950 grain measures of the standard silver nitrate solution before a permanent precipitate begins to form?

III. Chemical Compound.—Define a chemical compound, and describe an experiment demonstrating the condition in which the constituents of the atmosphere exist.

IV. Gas Volume.—What is the volume in cubic centimetres, at 750 m. m. pressure and 12° C., of each of the gases produced by the decomposition of 5 grammes of water; 1 litre of hydrogen at the standard temperature and pressure weighing 0·0896 gramme?

V. Specific Gravity.—A specific gravity bottle, capable of holding 100 grammes of water, contains 87·2 grammes of turpentine; on adding 10 grammes of sugar, the contents of the bottle are found to weigh 89·125 grammes. What is the specific gravity of the sugar?

ANSWERS.

First Division.

I. Quantitative Analysis.—The mixture contained 2·3796 grammes of sodium chloride. The molecular weight of argentic chloride is 143·5, and one molecule of it contains chlorine equivalent to one molecule of potassium chloride (74·5); if all the chlorine were combined with potassium, the salt would weigh 4·264 grammes, according to the following proportion:—

$$143{\cdot}5 : 8{\cdot}2133 = 74{\cdot}5 : x \therefore x = 4{\cdot}264.$$

But the mixture weighs ($4{\cdot}264 - 3{\cdot}6132 =$) ·651 of a gramme less. Now this difference bears the same proportion to the quantity of sodium chloride present as the difference between the molecular weights of potassium and sodium (16) does to the molecular weight of sodium chloride; therefore, the quantity of this salt in the mixture is found by the proportion:—

$$16 : 58{\cdot}5 = {\cdot}651 : x \therefore x = 2{\cdot}3796.$$

II. Acidum Sulphurosum, *B.P.*—The theoretical product of the officinal process measures 21·184 fluid ounces, and contains 1294·059 cubic inches of sulphur dioxide. 1,000 grain measures of the standard solution of iodine, containing $\frac{1}{10}$th of an equivalent of iodine, are required for the oxidation of 34·7 grains of this preparation, indicating the presence of $\frac{1}{20}$th of an equivalent, or 3·2 grains of sulphur dioxide, the remainder ($34{\cdot}7 - 3{\cdot}2 =$), 31·5 grains, is water. Now 20 ounces of water are employed in the process, therefore to find the weight of the product we have the proportion:—

$$31{\cdot}5 : 20 = 34{\cdot}7 : x \therefore x = 22{\cdot}0317.$$

As the specific gravity of the solution is 1·04, this is equal to $\left(\frac{22{\cdot}0317}{1{\cdot}04} = \right)$ 21·184 fluid ounces. The weight of the sulphur dioxide absorbed is ($22{\cdot}0317 - 20 =$) 2·0317 ounces, or 888·889 grains, the volume of which would be $\left(\frac{888{\cdot}889 \times 100}{68{\cdot}69} = \right)$ 1294·059 cubic inches.

III. Heat.—The term specific heat is applied to the amount of heat required to produce a given change in the temperature of a substance, compared with the amount of heat required to produce the same change in the temperature of another substance taken as a standard. The specific heat of mercury may be readily determined by mixing a known weight of mercury at a given temperature, say 40°, with an equal weight of water at a higher temperature, say 100°. It will be found that instead of a mean temperature of 70°, which would result if water were substituted for the mercury, the temperature of the mixture is about 98°. The amount of heat, therefore, which altered the temperature of the water 2° has altered that of the mercury 58°, consequently the number $\left(\frac{2}{58}=\right)$ ·034 represents the specific heat of the mercury.

IV. The quantity of ammonium nitrate required is 5·9885 grammes. The diameter of the spherical vessel being 15 centimetres, its capacity is $(15^3 \times 0{\cdot}5236=)$ 1767·15 cubic centimetres, or 1·76715 litres. As one litre of nitrogen monoxide weighs 1·97172 grammes at the normal temperature and pressure, we may find its weight at 750 m. m. pressure and 12° C. by the following proportion :—

$$\left.\begin{matrix} 760 : 750 \\ 273+12 : 273 \end{matrix}\right\} = 1{\cdot}97172 : x \therefore x = 1{\cdot}864.$$

Then, to fill the sphere, we should have (1·76715 × 1·864 =) 3·2937 grammes of the gas. Under the influence of heat ammonium nitrate is decomposed, thus :—

$$NH_4NO_3 = N_2O + 2H_2O.$$

One molecule of ammonium nitrate (80) producing one molecule of nitrogen dioxide (44), accordingly the quantity of the ammonium salt required is the equivalent of x in the proportion—

$$44 : 3{\cdot}2937 = 80 : x \therefore x = 5{\cdot}9885.$$

(The weight of a litre of nitrogen monoxide, as it appeared in the question, was incorrect; it should have been 1·97172 grammes. We have allowed the full number of marks for correct solutions according to the given weight.)

V. Specific Gravity.—The specific gravity of the wood is ·823. The copper sinker and wood together weigh 20 grammes in air, and lose (20 − 12·25 =) 7·75 grammes when weighed in water; but the copper by itself would lose $\left(\frac{15}{8{\cdot}96}=\right)$ 1·674 grammes, therefore the loss due to the wood alone was (7·75 − 1·674 =) 6·076 grammes; then dividing the weight of the wood in air by the weight of water which it displaces, we have $\left(\frac{5}{6{\cdot}076}=\right)$ ·823, its sp. gr.

Second Division.

I. Quantitative Analysis.—The salt is fenic phosphate $FePO_4$, or $Fe_2P_2O_8$. As a molecule of fenic oxide (160) contains two atoms of iron (112), the quantity of iron in 10·527 parts of the oxide is found by the proportion : —

$$160 : 10{\cdot}527 = 112 : x \therefore x = 7{\cdot}3689.$$

As a molecule of magnesium pyrophosphate (222) contains two atoms of phosphorus (62), we may find the quantity of phosphorus in 14·75 parts of this salt by the proportion :—

$$222 : 14{\cdot}75 = 62 : x \therefore x = 4{\cdot}1193.$$

The remaining constituent of the salt is oxygen, the quantity present being (20 − (7·3689 + 4·1193) =) 8·5118 parts. Dividing these three quantities by their respective atomic weights, we have—

Fe 7·3689 ÷ 56 = 132.
P 4·1193 ÷ 31 = 132.
O 8·5118 ÷ 16 = 532.

These numbers are in the proportion of 1, 1, 4, and therefore indicate the formula $FePO_4$.

II. Sodæ Bicarbonas, *B.P.*—When this salt is dissolved in dilute hydrochloric acid the solution gives no precipitate with platinic chloride; this reaction distinguishes it from potassium compounds. The production of a white precipitate with mercuric chloride indicates the absence of the neutral carbonate, which would give a red precipitate. When supersaturated with nitric acid its solution scarcely precipitates with barium chloride or silver nitrate, showing the absence of more than a trace of sulphates or chlorides. The volumetric test should detect general impurities.

III. Thermometer.—The space measures 54·992 millimetres. The point marked 5° C. corresponds $\left(\frac{5\times 9}{5}+32=\right)$ 41° F., and that marked 38° R. corresponds with $\left(\frac{38\times 9}{4}+32=\right)$ 117·5° F., the difference being 76·5° F. The space from 0° F. to 212° F. measures six inches, therefore the space in question measures $\left(\frac{76{\cdot}5\times 6}{212}=\right)$ 2·165 inches, or (2·165 × 25·3995 =) 54·992 millimetres.

IV. Nitrogen Dioxide.—It would take 72·677 grammes of nitric acid and 19·229 grammes of copper to produce five litres of nitrogen dioxide at 748 m.m. pressure and 25° C. One litre of the gas at the standard temperature and pressure weighs 1·34343 grammes; to find what it would weigh at the given temperature and pressure, we have the proportion :—

$$\left.\begin{matrix} 760 : 748 \\ 273+25 : 273 \end{matrix}\right\} = 1{\cdot}34343 : x \therefore x = 1{\cdot}2113.$$

Therefore, five litres should weigh 6·0565 grammes. The action of nitric acid upon copper may be thus represented :

$$8HNO_3 + Cu_3 = 2NO + 3Cu(NO_3)_2 + 4H_2O.$$

Eight molecules of nitric acid (504) are required for the production of two molecules of nitrogen dioxide (60), therefore the requisite quantity of acid containing 70 per cent. of real nitric acid is found by the proportion :—

$$\left.\begin{matrix} 60 : 6{\cdot}0565 \\ 70 : 100 \end{matrix}\right\} = 504 : x \therefore x = 72{\cdot}677.$$

The quantity of copper required is ascertained in a similar manner, the weight of three atoms being 190·5, thus—

$$60 : 6{\cdot}0565 = 190{\cdot}5 : x \therefore x = 19{\cdot}229.$$

V. Specific Gravity.—By selling the oil at 15s. per gallon, a gain of 6s. is effected. The specific gravity of the oil is $\left(\frac{163{\cdot}23}{177{\cdot}43}=\right)$ ·92, therefore five gallons of it would weigh (·92 × 10 × 5 =) 46 pounds, which, at 1s. 6d., would amount to 69s., whereas at 15s. per gallon the amount is 75s., the difference being 6s.

Prizes.

The first prize for the best answers to the questions of the First Division printed in our March number has been awarded to

Richard W. Griffith (B. P.), 146, High-st., Southampton.

This is the fifth time that Mr. Griffith's name has been at the head of the list since last May.

The second prize for the best answers to the questions of the Second Division has been awarded to

Richard J. Manlove (P. L.), Mr. Griffiths', Slough.

Marks awarded for Answers.

First Division.

	I.	II.	III.	IV.	V.	E.	Total.
B. P. (*1st prize*)	8	8	6	8	4	3	37
F. W. Fletcher	9	8	6	8	1	3	35
T. Capper	8	5	5	1	4	2	25
J. H. Watson	9	0	6	0	4	2	21
Otho	8	0	6	0	4	2	20
D. P.	7	0	7	0	4	2	20
H. C. Webb	8	0	6	0	4	2	20
A. Fraser	8	0	4	0	4	2	18
D. P. Steven	8	0	4	0	4	2	18
Delta Beta	0	7	3	0	3	2	15

Second Division.

	I.	II.	III.	IV.	V.	E.	Total.
P. L. (*2nd prize*)	5	5	5	8	4	3	30
Eram	5	5	5	6	4	3	28
Nil Desperandum	5	5	5	7	4	2	28
T. C. A. Treadgold	5	5	5	6	4	3	28
Spes	3	5	5	7	4	3	27
Graham	5	5	0	8	4	3	25
E. M. D.	5	5	1	6	4	3	24
E. J. B.	5	4	5	1	4	1	20
J. Walker	0	5	5	2	4	2	18
Biondino	5	5	2	1	1	2	16
W. J. Smith	5	5	0	0	4	1	15

TO CORRESPONDENTS.

⁂ All questions forwarded to us for publication in this "Corner for Students" should be accompanied by the answers which the propounders believe to be correct. Communications should include the names and addresses of the writers; those which reach us after the fifteenth day of the month succeeding that in which the questions appear will be disregarded.

Prizes.—The students to whom prizes are awarded are requested to write at once to the publisher naming the book they select, and stating how they wish it forwarded.

F. W. Fletcher.—V. The quantity of water displaced by the wood is 6·076 grains, not 5·076. You lost the prize through a very simple error; you will find it a good plan, after you have worked out your solutions, to allow a few days to elapse before examining them a second time, by this means you are nearly certain to detect an arithmetical error.

T. Capper.—IV. You omitted to make the necessary correction for the given temperature and pressure to which the gas is subject.

J. H. Watson.—II. If the theoretical product measured forty-eight fluid ounces, it would be a great mistake to direct that it should be prepared in a pint bottle. In the officinal process a considerable quantity of the gas escapes undissolved, especially towards the close of the process, when the point of saturation is approaching. IV. You have taken cubic centimetres for litres.

Otho.—IV. Decimal point misplaced in final calculation.

D. P.—II. See remarks to *J. H. Watson.*

H. C. Webb.—IV. Error in formula for calculating the capacity of the sphere—0·05236 should be 0·5236.

A. Fraser.—III. From your use of the term caloric, we understand you to embrace the material theory of heat, which has been universally abandoned in favour of the dynamical, or mechanical theory. You will find the two theories fully explained in Chapter II. of Tyndall's "Heat, a Mode of Motion," a work which everybody should read.

D. P. Steven.—IV. Decimal point misplaced in the calculation of the capacity of the sphere.

Delta Beta.—The given diameter of the globe is 15 centimetres, not 5. According to our rules, no student can compete in more than one division at a time.

P. L.—You have given enough of the working; we do not require more than is necessary to show how results are obtained.

F. C. A. Treadgold.—IV. It is not necessary to calculate the volume of the gas at the given temperature and pressure; the weight is more readily and accurately obtained by the shorter method given above.

Spes.—I. You should have shown how the formula was determined.

Graham.—I. Zero in Fahrenheit's scale does not correspond with zero on either the Reaumur or Centigrade scale, which is the freezing point of water, or 32° F.

E. J. B.—II. Caustic alkali would be a most unlikely impurity, as it readily becomes converted into carbonate by the absorption of carbon dioxide from the atmosphere. IV. Your first solution was correct, but as you condemned it we cannot give you credit for it.

J. Walker.—I. Your answer must have been a guess; the determination of chemical formulæ requires much greater accuracy. II. The flame reaction and the effervescence with hydrochloric acid are not mentioned as tests for the purity of the salt, but as the more important chemical features by which it may be recognised.

Biondino.—III. You omitted the figure 3 from the first decimal place of the number of millimetres equivalent to an inch. IV. Error in the first proportion. V. Error in the final subtraction. You should examine your solutions carefully before forwarding them. If you can, try the plan which we recommend to *F. W. Fletcher.* We have no doubt that you will find it satisfactory.

Canadensis.—We shall be glad to have your name on our list of students. In your case we shall extend our limit of time to its extreme, and allow you the last day of the month succeeding that in which the questions appear, as the latest date on which we can receive your communication.

Books offered as First Prizes.

Attfield's *Chemistry: General, Medical, and Pharmaceutical.* (Van Voorst.)
Balfour's *Manual of Botany.* (Black.)
Brooke's *Elements of Natural Philosophy* (Churchill.)
Conington's *Handbook of Chemical Analysis;* with Tables of Qualitative Analysis adapted to the same. (Longmans.)
Eliot and Storer's *Manual of Inorganic Chemistry.* (Van Voorst.)
Fownes's *Manual of Elementary Chemistry.* (Churchill.)
Fresenius's *Qualitative Analysis.* (Churchill.)
Galloway's *Qualitative Analysis.* (Churchill.)
Galloway's *Second Step in Chemistry.* (Churchill.)
Ganot and Atkinson's *Elementary Treatise on Physics.* (Longmans.)
Garrod's *Materia Medica;* with Modern Chemical Notation. (Walton.)
Noad's *Chemical Analysis, Qualitative* and *Quantitative.* (Reeve.)
Northcote and Church's *Qualitative Analysis.* (Van Voorst.)
Odling's *Outlines of Chemistry.* (Longmans.)
Royle and Headland's *Materia Medica.* (Churchill.)
Williamson's *Chemistry for Students.* (Clarendon Press.)
Barff's *Introduction to Scientific Chemistry.* (Groombridge).
[Any other scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.]

Books offered as Second Prizes.

Balfour's *Elements of Botany.* (Black.)
Bloxam's *Laboratory Teaching.* (Churchill.)
Church's *Guide for Students in Agricultural Chemistry.* (Van Voorst.)
Galloway's *First Step in Chemistry.* (Churchill.)
Gill's *Chemistry for Schools.* (Walton.)
Hofmann's *Introduction to Modern Chemistry.* (Walton.)
Huxley's *Lessons in Elementary Physiology.* (Macmillan.)
Oliver's *Lessons in Elementary Botany.* (Macmillan.)
Orme's *Introduction to the Science of Heat.* (Groombridge.)
Potts's *Elements of Euclid.* School Edition. (Longmans.)
Roscoe's *Lessons in Elementary Chemistry.* (Macmillan.)
Wormell's *Elementary Course of Mechanics.* (Groombridge.)
Wurtz's *History of Chemical Theory.* Translated by Watts. (Macmillan.)
[Any other scientific book which is sold for about five shillings may be taken as a second prize.]

MANY of our readers have doubtless noticed a peculiarly attractive advertisement in our pages of aërated waters, manufactured by Mr. T. P. Wood, of Chesterfield. Other firms might with advantage introduce new styles of advertisement, in order to ensure the attention of readers. An attractive advertisement of a good article (the second proviso is essential) is a certainly profitable investment. Mr. Wood has asked us whether his beverages are good, and has sent us a sample for us to report upon. We have no hesitation in saying that they are so good that in a large office there is but little chance of testing their property of keeping good "in all climates and for a considerable period."

REVIEWS

DR. ATTFIELD'S CHEMISTRY.[*]

A FEW years ago the student of pharmaceutical chemistry, either in Great Britain or the United States, had a serious difficulty to encounter at the very outset—to procure a suitable book. The difficulty still exists, but in another form: it is now hard to select one. He may say with Seneca, *distrahit animum librorum multitudo.* The fact is, that chemical literature has become so abundant, that the modern student may place himself at the mercy of one or more of an almost unlimited number of authors. This is a consideration of no mean importance, when we consider the influence which a book has on the formation of a scientific character. It is not merely a companion for the time being, but a companion with whom we seek to be intimately acquainted. Reflecting thus, we turn with pleasure to this edition of Dr. Attfield's work, not to find the partial development of some new plan of teaching, but the elaboration of a tried system. The last English edition is now well known in Great Britain, and as the latest result of its well-deserved reputation, we welcome this American edition, regarding its appearance as a sign that the popularity of the work is not merely local.

The principal difference between this edition and its English predecessor is its adaptation to the Pharmacopœia of the United States, as well as that of Great Britain. The first alteration which strikes us is a decided improvement in arrangement; the names of the substances under consideration are printed in heavy characters at the head of the paragraphs devoted to them. By this means a more marked division of the subjects is effected, which will greatly facilitate reference.

Time does not permit us to do more than glance hastily through the work. In general arrangement it differs but little from the last English edition. It opens with the consideration of the general properties of the non-metallic elements; after studying which the student is expected to be prepared for the comprehension of the general principles of chemical philosophy; then he proceeds with the study of the metallic radicals, beginning with potassium and ending with the metals of minor pharmaceutical importance. The acidulous radicals and their salts form the next subject of consideration; after which there are a few pages on general qualitative analysis. The chemistry of certain substances of vegetable and animal origin occupies the next seventy pages, following which are chapters on chemical toxicology, the examination of morbid urine and calculi. The concluding pages (about 100) are devoted to quantitative analysis, both gravimetric and volumetric, embracing the measurement of atmospheric pressure and of temperature, the determination of specific gravity, and a full exposition of the metric system of weights and measures—a system which will undoubtedly be generally adopted in this country at no very distant date. The appendix contains a table of the officinal tests for impurities in preparations of the British Pharmacopœia; saturation tables; a table of the elements; one of the strength of alcoholic liquids; and last, but not by any means least, is a copious index, containing five thousand references. Unfortunately, a few typographical errors have crept in here in the numbers of the pages; we notice two under sulphur and one under sodium. Throughout the work there are series of well-selected questions, which give the student an opportunity of testing his proficiency as he proceeds—a most important precaution; but the questions should be properly used, and not answered direct from the book.

The author very properly pays particular attention to the etymology of scientific terms. It has been remarked that names often bear in them thoughts which "of themselves are perpetually slipping out of the field of immediate mental vision; but the name abides with us, and the utterance of it restores them in a moment." It is important that the student should be taught to look upon names as something more than arbitrary or accidental terms, especially now that the science of chemistry is progressing with such rapid strides, that one is but too often reminded of the absurdity of some of the terms that were used by our forefathers in their blissful ignorance. This brings us to the subject of the nomenclature, which is the same as that in the last English edition. It is to be hoped that Dr. Attfield's good example will not be lost on the next editions of the British and U.S. Pharmacopœias, and that such names as carbonate of soda, nitrate of potash, etc., will be replaced by terms more in keeping with modern ideas.

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[*] "Chemistry: General, Medical, and Pharmaceutical, including the Chemistry of the U.S. Pharmacopœia." By JOHN ATTFIELD, Ph.D., F.C.S. From the second and enlarged English edition. Philadelphia: H. C. Lea. 1871.

Referring to the scheme carried out by the author, we think that for his purpose no better could be adopted. It is now generally acknowledged that chemistry, to be taught properly, should be taught experimentally. The knowledge of the properties of different forms of matter, how they are prepared, identified, and separated, is not to be acquired by mere reading. The objects of some students are best attained by the special study of synthetical processes, whilst it suits others to pay more marked attention to analysis; but for the pharmaceutical student who requires to know how a large number of substances are prepared, and for whom a practical knowledge of analysis is equally essential, while the time at his disposal is generally very limited, we know of no better arrangement than that which the author has adopted. One of the most prominent features of this method is the grouping of the experiments described under two principal headings—"Reactions having synthetical interest" and "Reactions having analytical interest." Intermediate paragraphs are devoted to descriptions of the properties of the substances produced; explanations of the processes employed, illustrated where it is practicable by symbolic equations; while attention is frequently drawn to the chemical truths and principles which the reactions serve to illustrate, and peculiarities of nomenclature which are likely to embarrass the student are explained. There are also numerous hints on manipulation, precautions to be observed, etc. This mode of treatment possesses one marked advantage, and in it we recognise one of the results of the author's extensive experience in teaching. It is calculated to excite the interest of the student and to stimulate attention, the first essential to memory. But it is not without its disadvantages, foremost amongst these is the necessary absence of that classification so rigidly observed in some chemical works. This book contains "the chemistry of every substance recognised officially or in general practice as a remedial agent," so that we are not surprised to find but little space allotted to some of the less important substances, but such bodies as the non-metallic elements deserve rather more attention than the author has devoted to them.

The work, in its present condition, attests no small amount of well directed labour; it is eminently suited as a handbook for those for whom it was written, "the pupils, assistants, and principals engaged in pharmacy," and American pharmacists may consider themselves fortunate in being able to procure the work in such a handsome form as that which it has now assumed.

ADVANCED CHEMISTRY.*

The accomplished author of the work before us, whose fitness for the task he has undertaken is unquestionable, makes but a very modest claim in his preface. "The author," he says, "has tested most of the new processes which have appeared during the last twelve years in the *Chemical News*, (of which he is the editor), and as some of these have proved to be of great value, it was thought that a service would be rendered to analytical chemistry if these trustworthy methods of analysis were systematically arranged in a convenient form for laboratory use." Twelve years of testings and the systematic arrangement involve an amount of labour not usually devoted to a single volume.

There is no attempt to make this book a complete manual of analysis. Its character is rather that of a compendium of the more extraordinary processes, and its title indicates that it is limited in its range. It would, therefore, be quite out of place to criticise it for anything which it does not contain. But it is not by any means a disjointed, unconnected jumble of elaborate chemical processes. Every experiment described is brought into its proper group, and, as far as we have been able to examine the book, we have not found any instances of duplicate descriptions. A large proportion of the book is devoted to the metals, the separation of which from each other, their detection, assay, and purification, being rather fully treated. In this respect a very sensible plan has been adopted to make it perfectly clear where to find the description of the analytical separation of the metals. For example, under copper we find a description of the processes for separating it from those metals which have been previously passed under review, but no attention is there paid to its separation from the metals which follow. The articles, therefore, grow as they proceed. The limitation of the work, as we have indicated, undoubtedly gives it in some parts a very incomplete aspect, as, for instance, under the head "Water Analysis" (p. 423), one page and three lines on this subject in a volume of 450 pages striking one as rather disproportionate. Organic Analysis, too, is so very barely touched upon, that it would almost have seemed advisable not to have included it at all. The chapter, however, which it contains on Mr. C. M. Warren's method for performing combustions in a stream of oxygen gas is a valuable addition, and is excellently illustrated. This sort of criticism, however, is decidedly *hyper.* As far as it goes, the book is a splendid specimen of patient labour and of condensation.

REVELATIONS.

Mr. JOHN M. MAISCH (Philadelphia) has translated and published in the *American Journal of Pharmacy* the following, which are described as "results of analyses." We have before us evidence that at least in one instance, not published here, the author (Wittstein, *Taschenbuch der Geheimmittellehre*) has trusted rather to hearsay than to research, and it is therefore not certain that the rest are absolutely correct:—

"*Coca Pills*, by Sampson, New York. According to Hagar and Jacobsen, composed of powdered coca and extract of coca in about equal quantities; value about one-fourth of price.

"*Eau de Cythère*, a hair-colour restorer, consists of 4 chloride of lead, 8 hyposulphite of soda, 88 water. A similar composition was Eau de Fees, which a couple of years ago was introduced here. The writer found in a sample also some alkalies, earths and traces of nitric acid, originating probably in the spring or pump water used. Hagar and Jacobsen give the following formula:—hyposulphite of lead, 1½; hyposulphite of soda, 3; glycerine, 7; water, 88 parts.

"*Pommade des Châtelaines*, a hair invigorator, consists of benzoinated lard and some volatile oils.

"*Hamburg Tea*, by Frese and Co., of Hamburg; Senna, 8; manna, 3; coriander, 1.

"*Magnesian Aperient*, by Moxon, of England, is, according to Siller, anhydrous sulphate of magnesia, 31; carbonate of magnesia, 14; bicarbonate of soda, 30; tartaric acid, 25 parts.

"*Lait de Perles*, according to Dragendorff, 1 white lead, 7 rose-water.

"*Swedish Essence of Life* is made also in this country under various names. As usually made by apothecaries, it is a tincture prepared from 4 aloes, 1 agaric, 1 rhubarb, 1 zedoary, 1 gentian, 1 myrrh, 1 theriac, with 100 to 120 dilute alcohol. The secret medicine manufacturers usually substitute cheaper articles for the high-priced saffron and rhubarb.

"*Hoff's Extract of Malt* has been repeatedly altered in its composition. It is now a good beer, of a pretty constant alcoholic strength of 3 per cent., but varying in the amount of extract between 5·3 and 10 per cent. The beer sometimes contains an infusion of bitter herb (buckbean, blessed thistle) and of the bark of *Rhamnus frangula*. According to one original receipt, beer was mixed with a small quantity of a strong infusion of marsh mallow root, coriander, staranise, and grains of paradise, and with some simple syrup, glycerine, oil of lemon, oil of orange, and beer colouring (caramel). the consumers can make it for, at most, one-sixth of its price.

"*Zimmerman's Extract of Malt*, which, like the former, comes likewise from Berlin, is similar in composition.

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* "Select Methods in Chemical Analysis," (chiefly inorganic). By Wm. Crookes, Esq., F.R.S., etc. London: Longmans.

"*Matico Injection*, by Grimault, of Paris, for gonorrhœa, is made, according to Bjoerklund, by dissolving 4 grains sulphate of copper in 8 oz. infusion of matico (from ½ oz.).

"*Syrup of Horse-radish*, by Grimault. Hager gives the following directions :—50 p. each of fresh scurvy-grass, buckbean, and watercress, 60 of horse-radish, 40 of fresh orange berries, are infused with 3 cinnamon in 50 p. white wine, and after a day expressed; 250 p. sugar are dissolved in the filtrate.

"*Iodinized Syrup of Horse-radish*, by Grimault, contains 10 iodine and 5 potassium iodide in 8,000 of the former.

"*Syrop de Lait Iodique*, by Bouyer, of Paris: 200 cow's milk, 60 cane sugar, a little soda, and 1-6 of potassium iodide, are evaporated to 100 parts.

"*Myrrhine*, by J. B. George, of Paris, for the preservation of the teeth: Glycerin 38, myrrh 7, arrowroot 5, chalk 54, oil of cinnamon 1 part.

"*New York Pills*, by Sampson, of New York. The 1½ grain pills consist of powdered coca 25, extract of coca 30, powdered iron 35 parts.

"*Opiate Pour les Dents*, by Pinaud. Syrup 70, chalk 71, gypsum 7½, magnesia 1½, coloured with anilin red, containing arsenic, and flavoured with oil of cloves and of spearmint.

"*Holloway's Pills* are composed of aloe, myrrh, and saffron.

"*Morrison's Pills*, 2½ grains each, consist of aloe, cream of tartar, and colocynth; another kind contains the same ingredients, besides gamboge.

"*Radway's Ready Relief*, according to Peckolt, is an etherial tincture of capsicum, with alcohol and camphor.

"*Radway's Renovating Resolvent*, a vinous tincture of ginger and cardamom sweetened with sugar. (Hager and Jacobsen.)

"*Poudre Hémostatique Végétal*, by Bonnatour, consists of 4 rosin, 1 gum arabic, 1 wood charcoal.

"*Poudre Unique*, by Godernaux, of Paris, lauded as a specific against epilepsy, is impure calomel, leaving when heated a slight reddish residue.

"*Oil of Horse-chestnuts*, by E. Genevoix, of Paris, is not the oil of the horse-chestnuts, but another non-drying oil, altered by heat so that it has acquired a darker colour, a pungent odour, and acrid taste." (Wittstein.)

CHEMICAL SOCIETY.

April 20th.

Professor Odling, F.R.S., Vice-President, in the chair.

The following gentlemen were elected Fellows :—C. C. Grundy, I. B. Lecturer, G. Sutcliffe, W. Ward. Mr. C. Haughton Gill read a paper "On some Saline Compounds of Cane-sugar." The author succeeded in obtaining definite crystalline compounds of cane-sugar with the chloride, bromide, and iodide of sodium. The crystals of the latter compound are very fine, and their constitution makes it seem probable that the true molecular weight of cane-sugar should be represented by the formula $C_{24}H_{44}O_{22}$. The measurements of the crystals mentioned in Mr. Gill's paper were executed by Professor Miller.

May 4th.

Dr. Warren De La Rue, F.R.S., Vice-President, in the chair.

The following gentlemen were elected Fellows:—R. S. Best, C. S. Cross, W. H. Darling, G. H. Ogston, J. Schweitzer, W. A. Smith. Dr. Völcker delivered a lecture on "The Productive Powers of Soils, in relation to the loss of Plant-food by Drainage." The lecturer began by showing the futility of the belief that a soil analysis could reveal whether a land was productive or not. To those who only imperfectly know the teachings of modern agricultural science, it appears very simple to remedy a deficient soil by finding out through analysis the wanting constituents, and then to supply them. But this is not so. Not only is it difficult exactly to analyse a soil, but many other conditions besides the composition of a land have to be observed. The state of combination in which the mineral constituents of a land are found, the physical condition of the soil, the presence or absence of some matter injurious to the growth of plants, all these are as many important points, upon which soil analysis throws no light whatever. The lecturer equally opposes the views of those who advocate that in a system of rational farming, there should be kept up a debtor and creditor account as regards the constituents which are removed from the soil in the crops grown upon it, and the quantity of fertilizing matters restored to it in the shape of manure.

The fertility of the soil cannot be maintained, much less increased, if only as much fertilizing constituents would be applied to the land as one removes from it in the crops.

Dr. Völcker then discussed the relative values of various mineral salts as manures, quoting, in support of his views, the results of the classical field experiments of Lawes and Gilbert, and this then led the lecturer to speak of the examination of land drainage-waters. Lawes and Gilbert, throughout a long series of experiments on the growth of wheat, have experienced a great loss of nitrogen. The amount of nitrogen supplied in the manures was greater than that recovered in the increased produce.

It appeared to Dr. Völcker that the nitrogen lost might have passed into the drains. Careful collection of such drainage-waters and their analysis, proved Dr. Völcker's supposition to be correct. It became clear that in whatever form the nitrogen is applied to the soil a large proportion of it is carried off, chiefly in the form of nitrates.

At all times of the year, but especially during the active period of growth of the crops, nitrates are found in the watery liquid which circulates in the land, whereas ammonia salts are never met with in any appreciably large quantities. It may therefore be assumed that it is chiefly, if not solely, from the nitrates that the crops build up their nitrogeneous organic constituents.

Dr. Völcker's analysis of drainage-waters further showed that potash and phosphoric acid, which certainly are the most important mineral constituents for the plant, are almost entirely retained in the soil, whilst the less important, as lime or magnesia or sulphuric acid, pass with greater readiness out of the land.

Trade Memoranda.

Mr. Ernest Agnew, late of Paris, has purchased the business known as Baumgarten's, at 520, Oxford-street, London.

Mr. R. Jones Owen, the author of the "Chemists' and Druggists' Compendium," etc., has opened a dispensing business at Leytonstone.

We have to record the death of Mr. Robert Higgins, of Bromyard-road, St. John's, Worcester. Deceased formerly carried on business as chemist and druggist, and might justly be esteemed one of the oldest inhabitants. He died on the 15th of April, at the great age of 94.

The justices of the county of Worcester are seeking a person possessing a competent medical, chemical, and microscopical knowledge as analyst of articles of food and drink purchased within the said county, under the 23rd and 24th Vict. cap. 84 of the Adulteration of Food and Drink Act. Testimonials, &c., to be sent in the 27th inst.

Under the title of "Notes en Vacance," our correspondent in France last month referred to some frauds on English manufacturers which are openly practised throughout that country. Henry's Magnesia was especially instanced. Our New York correspondent this month describes an equally barefaced imposition which is practised in America in brown Windsor soap, Messrs. Low, Son, and Haydon, of London, this time being the victims. There is no mistake about the compliment, but it is a very left-handed one. We have lately seen some of the bottles of perfume sent out by this latter firm, very neatly turned out with capsule sprinklers for stoppers, the capsules having a gold or silver appearance, which it is said will never tarnish. American dealers who have sold the imitation of Messrs. Low's soap, might to their own advantage, and for the benefit of their consciences, square matters by selling some of these beautiful perfumes.

The publisher of the Chemist and Druggist has in stock some handsome reading cases to hold six numbers of this publication. These will be found very convenient by those who care to keep their papers in order. Price 2s. 6d. each, sent for enclosure to any London wholesale houses. 2s. 9d. post free.—[Advt.]

NOTES AND QUERIES

ON THE STUMP.—A.C. sends us the literal copy of a prescription which he was called upon to dispense. The patient was a poor person who had received the prescription from a travelling doctor. We append the document entire.

℞ External Use
Crotton Oil fl ℥ij
Turpentine Oil fl ℥i
N.B. Rub the part thorroughly by the Hsat of the Fire.
A poor Man's plaster rubbed between the sholders.
℞
C′ E of Sarsaparilla fl ℥vi.
Hiodroide of Potassum fl ʒi
N.B. The above to be prepared by the chemist.
Q S Cochl parvum Magnum Mediocre
℞
Mtd T of Iron ℥iv
Quinine ʒiss
2 S m xx P Meridian

The confusion about the spoonful is extremely rich.

Bald people anxious to preserve a youthful appearance will do well to study the proceedings of the sanitary commission now sitting at the recommendation of Dr. Hamberg, physician to the King of Sweden, at Stockholm, to pass judgment on a certain "Hair Restorer," to the use of which Dr. Hamberg attributes the King's recent dangerous illness. This cosmetic, in spite of its "vegetable" character, according to his analysis contains a large proportion of oxide of lead most injurious to the human system. Dr. Hamberg says nothing as to the other effects of the hair restorer—whether it has produced the abundant growth of hair promised in advertisements or not. If it has, the King would appear to have paid dear for the beautifying results. The royal commission might with good reason extend its inquiry to other cosmetics, but is probably aware that human vanity is proof against chemical and medical arguments. In England, indeed, there would seem to be little object in caution, for, considering that we swallow almost pounds of poison in our food and drink, the few grains of oxide of lead in the hair wash would hardly materially influence the result.—*Pall Mall Gazette.*

Liebig writes in the *Journal für Praktische Chemie* that several articles have been sold and manufactured, among others by M. J. P. Liebe, apothecary, at Dresden, under the title of Liebig's unfermented extract of malt, Liebig's extract of malt with iron, iodine, quinine, iodide of iron, etc.; Liebig's condensed milk; and Liebe-Liebig's food for infants. Professor von Liebig desires it to be known that he never gave his consent to the use of his name in any of these articles, nor does he know anything about their real value, his name having been made use of without his consent and entirely against his will. The only dietetic preparation to which the Professor's name is attached with his full knowledge is the extract of meat prepared at Fray-Bentos, and the strict condition has been imposed upon the Company that no extract of meat shall be delivered to the trade unless it has been previously tested and approved of by Dr. M. von Pettenkofer.

S. Liston (Great Horton).—Your inquiry shall receive our best attention.

CEYLON AND OUR QUININE SUPPLY.—From information derived through private and reliable sources, we are enabled to state that Ceylon gives fair promise to take rank at no very distant time as one of the chief quinine-producing countries in the world. Although the cinchona plant has been for many years cultivated in the colony, it was not until quite recently believed that the bark afforded an appreciable proportion of quinine, but only cinchonine or other of the less valuable medicinal alkaloids, and consequently little attention was bestowed on its cultivation. It appears, however, that a sample of some bark recently sent to this country for analysis was found to contain a large quantity of the sulphate of quinine. A pound of this bark contained of sulphate of quinine 289 grains, of quinidine 47 grains, and of alkaline cinchonine 14 grains. An ounce of sulphate of quinine was thus obtained from one pound eight ounces and a quarter. As the supply from Peru has greatly diminished, and as India, it is said, consumes its own quinine, there is every reason to believe that the cultivation of cinchona will secure some of that attention from cultivators in Ceylon which has hitherto been almost exclusively bestowed on the growth of the coffee-plant. As another cause which may give some impetus to the cultivation of cinchona in Ceylon, it is stated that the red bark is highly praised in Paris for tooth-powders, as it gives them a delicate tinge, and at the same time a bitter flavour.—*British Medical Journal.*

Provincial and Foreign Reports.

[*We shall be glad to receive from all parts of the world items of interest to our readers. Correspondents who favour us with reports of local meetings, etc., will please to condense them as much as possible; and when local newspapers are sent, we shall be glad to have the passage intended for our notice specially marked.*]

GLASGOW CHEMISTS' AND DRUGGISTS' ASSOCIATION.

THE eleventh meeting of the session was held as usual in Anderson's University, 204, George-street, on the 8th March. The President, Mr. THOMAS DAVISON, presiding.

Messrs. A. Jamieson and Robert Walker were elected members.

Mr. JOSEPH CLARK was then introduced, and delivered his paper on "Botanizing." He said he found his subject divided into two parts, viz., "Collecting" and "Drying," and as his remarks on the former required all the time allowed for reading his paper, he would defer consideration of the latter part till some future night. He then went on to describe the first steps in the collection of plants, and explained the uses of the necessary implements, viz., the digger, vasculum, and pocket glass; and after mentioning the proper time for collecting plants in fit condition for botanical purposes, and giving some hints on the selection of plants for beginners, he described the different parts of a flower, such as calyx, corolla, stamen, and pistil. Referring to the fruit, he corrected a popular error regarding it, explaining that the soft part of such fruits as the strawberry, apple, orange, etc., was not in reality fruit, but merely a soft coating to protect the fruit proper. He then referred to the uses of botany in the arts and medicine, and also to the selecting of poisonous from non-poisonous plants, showing the advantage of a knowledge of botany to travellers. He next drew attention to the generic and specific names of plants, and recommended the "Clydesdale Flora," by Professor Hennedy, as the best text-book for this district, and mentioned some spots in the neighbourhood well adapted for studying the science. Mr. Clark's paper was listened to with marked attention, and being illustrated with diagram and natural flowers, was rendered all the more interesting. A hearty vote of thanks was given him.

The report of the Soirée Committee was then submitted by the Secretary, showing a balance of cash in favour of the Association.

Mr. PATERSON, in proposing a vote of thanks to the Committee, referred to the donation offered by the Chairman of the Soiree, Mr. McDonald, of £5 for prizes, etc., and also read a communication from Messrs. Evans, Sons, and Co., of Liverpool, authorizing him to present to the Association one of their five guinea cabinets of Materia Medica.

On the motion of the PRESIDENT, the Secretary was instructed to convey the best thanks of the Association to those gentlemen for their handsome donations, which was agreed to with acclamation.

TWELFTH MEETING.

The Association again met in Anderson's University on the 22nd March, Mr. T. DAVISON, presiding. Daniel Frazer, Esq. (Pharmaceutical Chemist), and Messrs. Beatie, Symington, Scott, Peacock, and Nelson were elected members.

On the motion of Mr. J. F. WILSON, a large and influential committee was appointed to endeavour to extend the early closing movement more generally throughout the city than at present.

The President then introduced Dr. D. Campbell Black, who delivered an address on the "Relations of Dispenser and Prescriber." Dr. Black traced the history of the professions from the earliest times, and referred to the various Acts that had been passed, including the Charter of the Apothecaries Companies of London and Dublin, stating that in his opinion the Pharmacy Act of 1868 had entirely superseded them and all other enactments, and that the position of prescriber and dispenser being now clearly defined, the time had come that neither should interfere in the other's vocation. He referred in humorous and characteristic manner to the position of many Glasgow physicians, having their windows and doors gilded with such quack advertisements as "Rooke's Solar Elixir," and "Whelpton's Purifying Pills." He said he had some excuse for the druggists selling patent medicines, as their trade was regulated by "supply and demand," but it was the duty of a physician to correct error rather than to encourage it in such a manner. He further said that he held the opinion that no government should sanction the sale of secret medicines, and thought that the law of France was worthy of imitation in this respect.

A short discussion followed the delivery of the address, in which some of the speakers corroborated some of Dr. Black's remarks, especially that in which he stated as his belief that open surgeries did much to reduce the quality of medicine, and said he had learned that it was customary in some establishments to sell colocynth pills at a price that would hardly purchase one of the ingredients they ought to contain.

On the motion of the President, seconded by Mr. Kinnimont, the Doctor was awarded a hearty vote of thanks for his admirable address, and requested that the Association should be permitted to publish it in full.

Dr. Black gracefully acknowledged the compliment, and handed over his address to the Society to put it to what use they thought fit.

A sub-committee was then appointed to arrange with Professor Hennedy for a course of lectures on botany, suited to the wants of students in pharmacy.

The fourteenth and concluding meeting of the session of this Association was held in Anderson's University, 204, George-street, on Wednesday evening, 19th April, Mr. T. Davison, President, presiding. There was a good attendance.

The minutes of the previous meeting having been read and approved of, the Chairman called upon Mr. J. L. Macmillan, to read a paper on "Volatile Oils," at the conclusion of which Mr. Kinnimont complimented Mr. Macmillan on the lucidity of his explanations, and recommended him to proceed in his investigations, as there was wide scope for discovery and research in connection with the subject.

Some remarks were afterwards made by Messrs. Paterson, Fairlie, and Davison, and a unanimous vote of thanks was passed to Mr. Macmillan.

The report of the Early Closing Committee was then submitted, and being considered favourable, the committee was instructed to take further action as soon as possible.

Mr. Fairlie, Hon. Secretary, afterwards announced the arrangement that had been entered into with the "Popular Class Committee" of Anderson's University, for a botany class for students in Pharmacy, to be conducted by Professor Hennedy. He stated that he had already received about thirty names, and that the class would commence on Wednesday, 26th April.

The President then delivered his valedictory address, in the course of which he congratulated the Society on the importance of the position it had now attained. He stated that the society was instituted in 1854, as an Early Closing Association; for three years it had wrought hard, and after partially attaining its object, it was reorganized into a mutual improvement society. For many years their only place of meeting was in a temperance hotel, till, through the kindness of Dr. Moffat, they were permitted to meet in his laboratory, till last year, when the Council felt it desirable that some change should be made, both for the benefit of the Association and the trade. Negotiations were entered into with two of the scientific institutions of the city, the result being that they were now located in a comfortable home of their own. They had still much to undertake before the Society could take the position it ought to hold in the country. He therefore counselled the members to persevere in their studies, so that each might add his share to the building of a truly educational institution.

Mr. Kinnimont, in proposing a vote of thanks to Mr. Davison for his services as President, remarked that he thought he (Mr. K.) was the only person present who had attended the first meeting on the early closing movement in 1854, and in looking back over the years that had intervened, he thought the members might congratulate themselves upon the advance which had been made. No one present could have any conception of the struggles of the three years referred to by Mr. Davison. He (Mr. K.) thought, however, that they had been exceedingly fortunate in their choice of President and Secretary this session, and to his mind the amount of work they had gone through was more than ordinary. He therefore had much pleasure in proposing a vote of thanks to Mr. Davison.

The vote of thanks having been most heartily responded to, Mr. Davison replied, stating that but for the active assistance rendered him by the Secretary, he could not have performed his duties so well as he had done, he therefore proposed that the heartiest thanks of the Association be given to Mr. Fairlie for his arduous labours as Secretary.

Mr. Fairlie briefly acknowledged the compliment, and while doing so stated that he had received a copy of the "Register" of chemists and druggists for the use of the Association, and any member who wished to know if their address was correct, could now do so. He also stated that the *Pharmaceutical Journal* and *Chicago Pharmacist* had been regularly received by him, and any member who did not see these journals regularly could do so by applying to him.

The President afterwards stated that Mr. Ince was engaged preparing a book of autograph prescriptions for Glasgow, and that he hoped to have it in his hands soon, when members would have an opportunity of inspecting it.

LIVERPOOL CHEMISTS' ASSOCIATION.

The ninth general meeting of the present session was held at the Royal Institution on Thursday evening, March 16th; the President, Mr. John Abraham, in the chair.

The President handed to the Honorary Secretary a Book of MS. Prescriptions, collected and arranged by Joseph Ince, Esq., F.L.S., etc., of London, and presented by him to the library of the Liverpool Chemists' Association. He said the Association would feel much indebted to Mr. Ince for his valuable present, which he trusted students in pharmacy would take advantage of. He also suggested that it would be of service to employers, to test assistants before engaging them. The Council were desirous that the members should have opportunity to avail themselves of the benefit to be derived from the collection; and, in order to accomplish this, they had adopted a resolution, which he called upon the Secretary to read:—"That application for the book be made to the Librarian *in writing*, that no Member or Associate be allowed to keep it longer than three days without being liable to a fine of twopence per day. The written application to be given up when the book is returned.'

The President also handed to the Secretary a copy of Bentley's "Manual of Botany," second edition, 1870, which the author had requested him to present to the Association.

The Secretary announced donations of the *New York Druggists' Circular*, the *Pharmaceutical Journal*, etc., to the library; and a specimen of fresh nutmeg fruit, with leaves, etc., to the museum, from Mr. Richard Evans.

Unanimous votes of thanks were accorded to the donors for their valuable contributions.

The paper for the evening was read by Mr. James Blair, on "The Chemistry of Calico Printing," No. I. The author very ably showed the various processes from the first stages, describing in detail the chemical composition and combinations of the aniline salts, etc., used to produce the various colours.

The paper was practically illustrated with numerous drawings and photographs of the machinery employed; specimens of cloth, showing the various stages of bleaching and printing from the raw or grey cloth to the finished pattern of many colours and intricate design.

A short discussion followed, and upon the motion of Mr. Davies, supported by Mr. Garnet and the President, a vote of thanks was accorded to Mr. Blair for his valuable paper.

The tenth general meeting was held at the Royal Institution on Thursday evening, the 30th March, the President, Mr. John Abraham, in the chair.

Donations of periodicals to the library were announced, and votes of thanks accorded to the donors.

Mr. S. G. Hilditch called attention to the presence of phosphate of lime in animal charcoal. He thought the formula given in the Pharmacopœia for the manufacture of pure animal charcoal was incomplete, and suggested the necessity of testing for phosphate of lime before using it for chemical investigation. He promised to make further experiments ,and report at a future meeting.

Mr. Edward Davies, F.C.S., had made several experiments, and found it was not an easy matter to rid animal charcoal of this impurity.

The paper for the evening on the "Nomenclature of the Natural Sciences," by Mr. Charles Symes, Ph.D., etc., was read by Mr. Alfred H. Mason, F.C.S., in the unavoidable absence of the author. Dr. Symes drew attention to the nomenclature of the sciences of botany, chemistry, conchology, mineralogy, microscopy, and zoology. He criticised and condemned the present system, especially where it is allowable to associate the name of an original discoverer with the technical name of the substance, and urged the importance of a definite and reliable system of nomenclature being fixed. He suggested that this should be accomplished by the formation of an international natural history committee, with authority to frame a code of laws, such committee being divided into sections, each to undertake one particular branch; the results thus arrived at could be printed as proof sheets, and freely circulated for criticism amongst naturalists throughout the world. After any alterations and corrections that appeared desirable, a final revision should render these laws binding on every naturalist who wishes to maintain a position in the sphere of science. These would constitute a standard of appeal in case of dispute, and the student once master of them, would find advancement and retention in the memory comparatively easy, and every true lover of science would strive to establish and perpetuate them, presuming, of course, that such laws would be calculated to work the reform desired, and would bear the stamp of judgment, equity, and authority.

Mr. Edward Davies, F.C.S., was glad to find that the science with which he was associated had merited praise from Dr. Symes for its system of nomenclature; there had not been so many difficulties to contend with as in some of the other sciences, as old names were changed before the great mass of new chemicals were introduced. He thought it would be a difficult matter to alter nomenclature, and in some cases not desirable. Take, for example, the British ferns, with their many varieties, alteration would not make their nomenclature more expressive. Mineralogists had the greatest difficulties to contend with, and it was there where reform was most wanted. He thought it would be unwise to make changes upon individual authority.

The President thought some minerals might be described by their chemical composition. He could not see any objection to the nomenclature of Diatoms being associated with the name of the first exhibitor of them. Speaking of chemistry, he regretted to note the changes in nomenclature which had taken place of late years—take, for instance, chloride of mercury. Chemists differed in their nomenclature, for instance, sulphate of soda might be called sulphate of soda, sulphate of sodium, sodic sulphate.

Mr. Davies thought the change in chloride of mercury was a very desirable one, as we now had definitely mercuric chlorides and mercurous chlorides.

The Secretary was instructed to convey a unanimous vote of thanks to Dr. Symes for his paper, and the meeting closed.

The eleventh general meeting of this Association was held at the Royal Institution on Thursday evening, the 13th April; the president, Mr. John Abraham, in the chair.

Mr. Alfred E. Tanner asked the opinion of the members upon the incompatibility of persalts of iron with infusion of chirata. A mixture of inf. chiratæ with liq. ferri pernit. had been returned to him by a physician because it was dark coloured, and slight decomposition had taken place.

Mr. S. G. Hilditch said that if the infusion was prepared in accordance with the Pharmacopœia persalts of iron were incompatible with it, and the mixture would be a dark brown colour; but if the infusion was prepared with cold water the mixture would not be effected. The intensity of colour would vary according to the temperature of the water used to make the infusion, hot water taking up much more gallic acid than cold water. He noticed that the characteristic inky taste was not present, but this might be covered by the intense bitter of the chirata.

Mr. Charles Symes, Ph.D., thought the process given in the Pharmacopœia for making linimentum hydrargyri was unnecessarily tedious, melting the mercurial ointment being quite undesirable. Taking the quantities given in the Pharmacopœia, he agitated the ammonia with one-half of the camphorated oil, rubbed the mercurial ointment with the other half, and mixed the two results together. A few minutes sufficed for the operation; heat was not used, and the product was quite satisfactory.

Mr. James Blair concluded his paper upon the "Chemistry of Calico Printing."

The paper was illustrated with photographs, charts, specimens of materials dyed and printed, and by experiments showing the effects of some of the processes employed.

At the conclusion of the paper ,Mr. Blair replied to several questions asked by those present, and after a short discussion the president congratulated Mr. Blair upon the copious and strictly scientific manner in which he had treated his subject, and moved a vote of thanks, which was carried unanimously.

The twelfth general meeting was held on Thursday evening, the 27th April; the president, Mr. John Abraham, in the chair.

The Secretary announced the following donations:—Hooker's "Students' Flora," Tyndall on "Sound," Naquet's "Modern Chemistry," the "Life and Letters of Faraday," 2 vols., Tuson's "Veterinary Pharmacopœia," Roscoe's "Spectrum Analysis," Fresenius's "Quantitative Analysis" (last edition), William's "Chemical Manipulation," Prior's "British Plants," the "Homœopathic Pharmacopœia," Miller's "Chemistry" (last edition), 3 vols., from the British Pharmaceutical Conference (Bell and Hill's fund). "Proceedings of the American Pharmaceutical Association at the Eighteenth Annual Meeting, held in Baltimore, September, 1870," from Professor Maisch, of Philadelphia, the "Pharmacist," from Mr. Ebert, of Chicago, the "New York Druggists' Circular," from Mr. Mercer, the "Pharmaceutical Journal," from the Society, "Journal of the Liverpool Polytechnic Society," from the Society.

The President informed the members that the Council, feeling some difficulty in choosing books to add to the library, had solicited the assistance of Professor Attfield, who had kindly selected and sent down the books just presented. He was sure the members would feel much indebted to the Professor for the very able selection he had made. The Committee of the British Pharmaceutical Conference were enabled to make this donation through the thoughtful liberality of Mr. Thomas Hyde Hills, honorary member of this Association. The volumes were handsomely bound, and stamped with the device of the Bell and Hill Fund.

Unanimous votes of thanks were passed to the donors for their valuable contributions.

The Secretary stated that he had received a letter from Mr. A. Norman Tate, regretting his inability to read his paper, "Some Thoughts on Iron," having unexpectedly been called out of town.

A short discussion arose upon the safe keeping of poisons and the members adjourned.

MANCHESTER CHEMISTS' AND DRUGGISTS' ASSOCIATION.

The sixth and last ordinary meeting of the session was held in the Memorial Hall, Albert-square, on Friday evening, April 14th, Mr. W. S. Brown, President, in the chair. There was a large attendance of members and associates.

The Chairman drew attention to the "Book of Autograph Prescriptions" on the table. These had been collected by Mr. Joseph Ince, of London, and presented by the Council of the Pharmaceutical Society. The great value of this collection would, he hoped and believed, be appreciated by the students who frequented the rooms at Mitre Chambers. Alluding to the classes which had been held during the session at Owen's College, he said the attendance had been, on the whole, satisfactory to the professors, though considerably smaller than the promoters of the course had hoped. A summer course of lectures on botany would be given, if a sufficient number of names were sent in to Mr. Benger, the hon. secretary. He congratulated the members on the present aspect of the Poisons Regulations, which were now to be issued as recommendations only; and he hoped that with the modifications which would be made in them they would be applicable to most businesses, and that chemists would apply them to the best of their opportunities, so as to ensure the safety of the public.

Mr. W. Bostock then moved "That the best thanks of this Association be forwarded to the Council of the Pharmaceutical Society, and especially to Mr. Joseph Ince, for his kindness in collecting and arranging the "Book of Autograph Prescriptions," presented to the Association."

Mr. G. S. Woolley, in seconding the vote of thanks, said that in future much greater value would be attached to the proficiency of candidates in pharmacy and practical dispensing in the examinations of the Pharmaceutical Society, and he would strongly advise all those who were preparing for those examinations to avail themselves of the opportunity now afforded of studying a great variety of styles of prescribing. The resolution was carried with acclamation.

Mr. J. T. Slugg, F.R.A.S., Vice-president, then delivered a most interesting lecture on "The Stars: What they are, Where they are, and Why they are." Mr. Slugg's lecture was listened to throughout with the greatest attention, and at its conclusion a hearty vote of thanks was conveyed to the lecturer.

YORK.

Arrangements have been made for opening in York a school for instruction in pharmaceutical science, under the conduct of Wm. Procter, Esq., M.D., F.C.S. The summer course of lectures commenced on Friday, 5th of May, at eight p.m., and are to be continued weekly in the Society's rooms, 67, Petergate. Fees for both sessions (to pupils or assistants of subscribers) one guinea, payable in advance to Mr. T. Cooper, hon. treasurer. Mr. Rob. Hedley, of 31, Coney-street, is the honorary secretary.

Correspondence

THE ELECTION OF COUNCIL.

TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

Sir,—In your last month's issue you noted your intention to make some remarks respecting the claims of candidates for the Council in the number for May. As it was beyond my power, after once accepting nomination, to remove my name from the voting-paper, I must request that you will permit me, through your columns, to state that I am no longer desirous of keeping it there, or to contest the election with those gentlemen who have been put forward as the most suitable exponents of pharmaceutical requirements by the association instituted for that purpose; but by retiring I hope to help to insure the election of those candidates who have been recommended as deserving of support.

Personally, it is a matter of satisfaction that I have been spared the sacrifice of time, which I could ill afford if elected, but, looking at the question in a broader light, I cannot but regret that it is impossible for more than one representative of the registered chemists to obtain a seat, even if that one obtains a majority of votes. In looking down the list of candidates, I observe but two names without the distinctive "P.C." attached, and on examining the names accepted by the Manchester Defence Association one only is permitted to appear unadorned. Having assented, from sheer helplessness, I now allude to the list for the purpose of showing to outsiders that they will never obtain any representation without coming in force to the Society to assert a power in the election of Council. And their voices will not avail, so long as the power of returning members remains in the votes of "pharmaceutical chemists." Is anything more required to show how groundless the alarm, how great the error which prevailed when debating the provisions of the Pharmacy Bill, lest there should be more than seven non-pharmaceutical chemists on the Council? After three years we can only find a single representative of the outside trade able to stand up for his class. It is but natural, and I do not complain that "pharmaceutical chemists," so long as they are able, should support their own natural order, but I cannot but express regret that after the battle has been won, which gave power and place to outsiders, they should neglect their own interests, standing aside apathetically looking at class legislation, when by slight effort and a trifling pecuniary consideration they might turn the tide to their own advantage. The Society has become legally recognised, and it is hopeless for any one to suppose that any rival association could in any way usurp its prerogatives. It can be made, as the druggists will, either an instrument of vexatious annoyance, or the shield of our liberties. It can be so utilised by the present act that the registered chemist may make himself heard and listened to.

There are times when the Council is not unmindful of the outsider. When his influence can be brought to aid the Society in its political schemes, and when it needs pecuniary help to increase its funds, this outsider is actually honoured with recognition in the report to be read at the annual meeting. He is there reminded of his eligibility to receive aid from the Benevolent Fund, and gently chided for not being more liberal during years of prosperity. Experience of the past has established little faith in equivalent for value received being honoured when due; and until confidence has been established, that a poor member of the Society would stand on equal footing, and be likely to obtain relief as readily as a needy "pharmaceutical chemist," the pockets of registered chemists and outsiders are likely to remain closed; and the act which I have commented upon, where by the aid of the entire trade, the associations for defence were enabled to defeat their Council, and they deliberately ignore that power, by denying them a place at the board, is not likely to instil a feeling of trust either in their justice or impartiality. If the new Council is desirous of refuting this imputation let one of their first acts be to abolish the two guinea entrance fee, and to make the Society a truly representative institution, and they will be the gainer. The outsider will then only receive his right, but the income of the Society will be augmented, its political power undisputed. In your December number for 1868, vol. ix. fol. 812, I protested against this imposition and breach of faith as an injustice to outsiders. I now reiterate the same arguments as suicidal to the progress and success of the Society itself.

Yours obediently,

May 10th, 1871. John Wade.

FOUND WANTING.

TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

Sir,—After two years' alliance with the Pharmaceutical Society, and finding nothing has been done towards removing the obnoxious distinction made between the members of the above Society, in reference to the exemption from serving on juries, I do not see the force of continuing to pay my fee of one guinea per annum for simply allowing my name to stand upon the books of the Society, and have therefore sent in my resignation, preferring rather to cast in my lot with the thousands outside the pale of Bloomsbury. I had thought when I joined the Society, that there would at least be this one advantage to be gained, if no other, namely, an equality, so far as the above exemption is concerned; but up to the present time I can see no indication of the Society doing anything to benefit the trade generally; on the contrary, they meddle with matters detrimental to the interests of country chemists, and throw restrictions upon the freedom of managing one's own business in one's own way. The result will be that they will in time bind hand and foot all those who choose to submit themselves to the tender mercies of the Pharmaceutical Council. I, for one, object to the unnecessary interference of this august body, and humbly think, after being at the business twenty-three years, the restrictions they would like to impose are unnecessary, while the searching examinations all future chemists are to undergo render the proposals equally superfluous as far as they are concerned. I have therefore resolved to join the great body of chemists and druggists who are out in the cold, and take my lot with them. I shall be glad if you will forward me the CHEMIST AND DRUGGIST every month, and I will remit you for the same. And for the future I shall be glad with others simply to watch the proceedings of the P.S.G.B.

I have the honour to remain, yours respectfully,

Sleaford, May 4, 1871. GEORGE WESTON.

P.S.—The thanks of the trade are especially due to the editors of the CHEMIST AND DRUGGIST for their persevering and undaunted advocacy of the *real* interests of all *country* chemists.

[It will be noticed that the writers of the two letters here printed successively, advocate exactly reverse policies. It seems to us to be simply a question of whether the Pharmaceutical Society offers sufficient value for the price it charges for membership. If the Society is so tyrannical as Mr. Wade intimates, that would be a curious reason for advocating its support.—ED. *C. & D.*]

THE PHARMACISTS OF THE FUTURE.

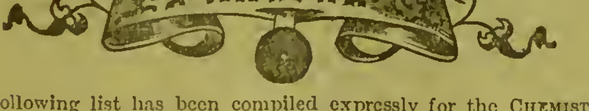
TO THE EDITOR OF THE "CHEMIST AND DRUGGIST."

SIR,—I observe in your remarks in the CHEMIST AND DRUGGIST of April the 15th, on Miss Emily Faithfull's lecture on "Woman's Work," you state "up to the present time no lady has presented herself for examination at the Pharmaceutical Society." I beg to state that on the 23rd of July, 1869, I did, and passed the modified, and had the satisfaction of receiving a note from the Secretary, to say that I had done so in a very creditable manner.

I am, yours respectfully,

CATHERINE H. FISHER,

Assistant with John Fisher, 20, Bank-street, Carlisle.



[The following list has been compiled expressly for the CHEMIST AND DRUGGIST, by L. de Fontainemoreau, Patent Agent, 4, South-street, Finsbury, London; 10, Rue de la Fidélité, Paris; and 33, Rue des Minimes, Brussels.]

Provisional Protection for six months has been granted for the following:—

591. O. A. Ullithorne, of Burton-street, Eaton-square. Improvements in ordinary and other carriages used by invalids. Dated 4th March, 1871.
655. W. Bailey, of Wolverhampton, Stafford. Improvement in trusses for hernia. Dated 11th March, 1871.
701. J. Scharr, of Stuttgart, Wurtemburg. Improvements in the manufacture of liquid soap. Dated 16th March, 1871.
724. J. Paterson, of Edinburgh. Improvements in capsuling bottles and other vessels, and in the apparatus or means employed therefor. Dated 17th March, 1871.
734. W. Purvis, of Marylebone. An improved medicinal biscuit. Dated 18th March, 1871.
757. C. Hiley, of Manchester. Improvements in the process or method of extracting madder from roots for dyeing purposes, and may also be employed for printing woven fabrics. Dated 21st March, 1871.
775. G. E. Marchisio, of Baker-street, and E. Stevens, of St. John's Wood. Improvements in making, refining, and purifying isolating oils, applicable for lubricating machinery and to the manufacture of preservative paints. Dated 22nd March, 1871.
778. J. Dewar, of Kirkcaldy, Fife. Improvements in the treatment of certain vegetable substances for manufacturing purposes, and for the production of food for man and animals. Dated 22nd March, 1871.
781. R. Ripley, of Liverpool. Improvements in preparing and compounding alkalies and acids with other substances, and in packing and packages for the same, so as to prevent deterioration. Dated 22nd March, 1871.
785. T. Rowan, of Glasgow. Improvements in utilizing bye-products obtained in the manufactures of alkali and chlorine. Dated 22nd March, 1871.
789. W. R. Lake, of London. An improved tap or faucet, for bottles and similar vessels. Dated 23rd March, 1871.
853. E. Königs, of Westhofen, Westphalia. Improvements in treating pyrites, and in obtaining sulphate of soda and other products. Dated 30th March, 1871.
856. W. E. Newton, of London. An improved process of, and apparatus for manufacturing, clarifying, and discolourising syrups and sugars. Dated 30th March, 1871.
858. J. Fordred, of Blackheath. An improved mode of, and apparatus for refining paraffine and spermaceti. Dated 30th March, 1871.
861. W. C. Westerton, of Kensington. An improved zymotic disinfecting fluid. Dated 31st March, 1871.
873. C. D. Abel, of London. Improvements in the manufacture and purification of glycerine. Dated 1st April, 1871.
904. F. Claudet, of Coleman-street. Improvements in treating solutions obtained from burnt cupreous pyrites. Dated 5th April, 1871.
926. W. Eagles, of Salford, Lancashire. A double-action self-supplying syruping or measuring machine for all kinds of liquids. Dated 8th April, 1871.
942. H. Stapfer, of Manchester, and T. Dean, of Leeds. Improvements in the filtration or separation of mineral or other oil from oleaginous matter, or from matter or compounds containing oil and in apparatus therefor; applicable also to the filtration of some other matters. Dated 10th April, 1871.
956. B. J. B. Mills, of London. Improvements in the preparation of juices of meat or other articles of food or remedial agents. Dated 11th April, 1871.
972. D. Jackson, of Walworth. Improvements in the manufacture of sulphuric acid, and in the apparatus used therein. Dated 12th April, 1871.
1025. W. R. Lake, of London. An improved plate or base for artificial teeth. Dated 18th April, 1871.

Letters Patent have been issued for the following:—

2595. H. Stapfer, of Manchester. A new manufacture of concentrated and preserved potatoes and other vegetables. Dated 30th September, 1870.
2679. N. Domaille, and P. Collas, both of Guernsey. Improvements in stoppers for bottles, and in the means of securing stoppers in bottles. Dated 10th October, 1870.
2701. J. B. Philips, of Kingsland-road. Improvements in apparatus for securing corks and stoppers in bottles. Dated 13th October, 1870.
2715. R. H. Davis, of Widnes, Lancaster. Improvements in packages or receptacles for sulphuric acid. Dated 14th October, 1870.
2751. W. E. Gedge, of London. An improved apparatus, combining the functions of a bung and of a self-acting vent-peg. Dated 19th October, 1870.
2784. W. Fletcher, of Ilkeston, Derby. Improvements in apparatus for measuring liquids. Dated 22nd October, 1870.
2866. J. H. Johnson, of London. Improvements in the manufacture of acids and alkaline salts. Dated 31st October, 1870.
2943. W. E. Newton, of London. An improved process for extracting the useful substance of hops, and for manufacturing a pure and concentrated extract of hops. Dated 8th November, 1870.
3274. W. R. Lake, of London. An improved process of eliminating the colouring matter of garancine and other products of madder. Dated 14th December, 1870.
3351. C. A. Calvert, of Manchester. Improvements in apparatus for drawing off and measuring liquids. Dated 22nd December, 1870.
452. G. Haseltine, of London. An improved method of, and apparatus for, carburetting atmospheric air. Dated 21st February, 1871.
472. G. Haseltine, of London. Improvements in apparatus for carburetting atmospheric air. Dated 22nd February, 1871.

Specifications published during the month. Postage 1d. each extra:—

1870.

2175. J. C. Young. Cupboards containing poisons, &c. 1s. 4d.
2194. S. Leoni. Apparatus for disinfecting, purifying, &c. 1s.
2269. H. Bradley. Disinfectant. 4d.
2280. W. H. Dee. Withdrawing liquids from flasks, &c. 8d.
2281. J. J. Shedlock. Purifying fats and oils. 10d.
2283. C. Wigg. Manufacture of sulphuric acid. 4d.
2293. D. H. Lowry. Manufacture of sulphuric acid. 4d.
2297. J. J. Hays. Purifying and utilizing sewage. 10d.
2298. G. Duncan and others. Discharging caustic soda from pots. 4d.
2312. S. Darby. Fluid meat. 4d.
2314. J. N. Jakins. Apparatus for assisting invalids. 4d.
2320. J. Lloyd. Distilling wood oil. 4d.
2362. R. Mackay. Aërated beverages. 4d.
2366. J. C. Simonds and another. Extracting oil from seeds. 4d.
2370. F. Coombes. Stoppers for bottles, &c. 4d.
2401. W. R. Lake. Extracting caustic soda and potash. 4d.
2418 A. McNeil and another. Manufacture of salts of ammonia. 4d.
2423. E. Edwards. Inhaling apparatus. 4d.
2454. T. Westhorp. Lint. 4d.
2478. J. B. Spence. Manufacture of alum. 4d.
2504. F. Kohn. Separating materials of different specific gravity. 4d.
2861. J. A. Newnham. Preserving milk. 4d.

THE proprietors of the CHEMIST AND DRUGGIST wish to receive applications from young gentlemen of good education, and possessing an acquaintance with the drug trade, who might wish to enter their office. The duties would comprise book-keeping, correspondence, and occasional assistance to the editor. Correspondents on this subject will please address, 8211, Colonial-buildings, Cannon-street, London, E.C.—[ADVT.]

OUR EXCHANGE COLUMN.

In the British Isles there are some ten or twelve or fifteen thousand chemists' and druggists' businesses; the figures varying according to the limit which one may be inclined to fix as to what is a chemist and druggist. These businesses comprise all sorts and conditions. The different districts in which they are carried on impose varying requirements, and it must so happen that on occasions the druggist of one district can accommodate the druggist of another to their mutual advantage. A druggist's stock, although it does not generally figure up to any very great total, is of a most extensive character, and all our readers know how careful it is necessary to be to prevent the accumulation of a lot of goods which are intrinsically almost worthless, but which represent an investment of money. Cats that catch no mice are not favourite animals with economists, and stock that runs to seed is worse than wasted.

With such views we offered a portion of our space last January as standing-room for our subscribers who could thus to mutual advantage adjust their property. The experiment has proved very satisfactory. A great many gentlemen have adopted it, and of these a good proportion have expressed their satisfaction, but it has not yet arrived at full growth. We wrote last month to some of our friends who had shown an interest in this column, and their replies have given us several suggestions, which we propose to carry out. We find that many who advertise in it think it would be better if the name and address of the advertiser were attached to his announcement, as it would save time in the correspondence and in other respects would give more definite information. To this, of course, we can have no sort of objection; indeed, we shall rather encourage it, as the time and postage-stamps involved in transferring the correspondence has become quite a serious item. We shall not close our system of figures, however, but shall make it a trifle more expensive, so that our publisher may be pacified. We refer those who will use our "Exchange Column" in future to the paragraph at the head of the column for the new terms.

Other correspondents have wished us to make a depôt at this office for the goods advertised. We are not prepared at this moment to fall in with that proposal, but if the column gets bigger, as we anticipate it will, we hope that we may be able to indicate a plan which will be of service.

There are a few gentlemen whose opinion we respect very highly, but who in this particular we think have not given their full consideration to the matter, who object to the introduction of shop matters in a shop journal. Artemus Ward's remark, that a joke now and then was not damaging to a comic paper, has been often quoted, but its moral may be applied again. In justification of ourselves, however, we may add, that whatever space we have given to this column we have more than balanced by increasing our literary pages on several occasions, this month for example, to meet an over supply of matter.

That many gentlemen who have used the "Exchange Column" have found it useful, will be seen from the following extracts, which we take from a few letters which lie before us :—

"'The Exchange Column' has been, as far as I have used it, a success."

"You never insert the address of advertisers—I cannot see the *least* objection to your doing so in cases where the parties themselves do not object. Then the correspondence could be carried on direct, and time and expense saved. Should the article be already disposed of there are *two* stamps thrown away instead of one, (and where you answer several advertisements this becomes a serious object); so long a time elapses until you get an answer, and perhaps after you have written a letter and used two stamps, you find the advertiser resides so far away that the carriage of the article would be more than it is worth."

"The result of advertising in the 'Exchange Column' last month was the disposal of two out of the four books advertised."

"The result of my advertisement in your 'Exchange Column' was quite satisfactory."

"I have disposed of all the books advertised in your last."

This was from a gentleman who advertised 50 ounces of Howard's quinine.

"Some of the offers I had were perfectly absurd, such as gilded mortar for outside, a warehouse scales, and several other curious things, but they had a right to offer and I to refuse. I have destroyed all the letters. Some one offered me 4s. an ounce for Howard's quinine in 1 oz. bottles, and to him I replied, that if I had stolen the quinine and did not know its value, his offer might have been tempting; but a gentleman in our business in Edinburgh had the honesty to offer me 6s. 9d. an ounce, and he had the quinine and I had his money."

"I sold about two-thirds of the articles inserted in your 'Exchange Column' of last month, and believe, in every instance, with satisfaction to the purchaser, at any rate I have not had any intimation to the contrary."

"I cannot say that I consider my advertisement was a success, for I had only one suitable answer; but in justice to your publication I must add that I have been more fortunate with the 'Wanted Column' for I sold one book at a fair price, and I could have also disposed of another copy. I think it likely to be a useful medium of bringing buyers and sellers in communication."

"Your 'Exchange Column' will be a great boon for both chemists and their assistants."

"I am very much pleased with the result of my connection with your 'Exchange Column.' I was offered two copies of Dr. Christison's 'Pharmacopœia,' and bought both; one being the first edition, the other the second. Before having recourse to your 'Exchange Column' I tried every method I could think of to obtain a copy, but without effect. It being out of print, a new copy cannot be got. The 'Exchange Column' is a *first-rate institution*; it is both amusing and useful."

"I am very well satisfied with the result of using your 'Exchange Column.' I obtained my prices for the sundries I had to dispose of, and consider that while I was satisfied, the person who bought them got them very cheap."

"I consider your 'Exchange Column' one of the greatest boons you could have given us, especially for the young men, who can thereby obtain books at a very reasonable price."

"My opinion of the 'Exchange Column' is that it is a very great acquisition to the Chemist and Druggist journal, and the trade must derive much benefit thereby; I therefore hope it will be continued."

"I think the 'Exchange Column' useful, as I have sold several articles by means of it."

Exchange Column.

Revised Terms.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the publisher of the Chemist and Druggist, and all correspondence relating to it must be addressed to "The Publisher of the Chemist and Druggist, Colonial Buildings, Cannon-street, London, E.C.," the envelope to be endorsed also with the number. The publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

FOR DISPOSAL.

Two Monocular Microscopes. 12/388.

Brown Spirit of Tar, for offers, 44/388.

Small Syruping Gauge for Aërated Waters. 51/388.

Finest Natal Arrowroot, cheap. Cash or offers. 55/388.

Stencil Plates, Brass. Alphabet, including diphthongs. Three-inch letters. New. Cost 20/. 38/388.

Government Manilla Cheroots. Five years old; 16/ per 100, or offers. 40/388.

Large Cylinder Electrical Machine and extras, 40/; or offers. 43/388.

Clark's Patent Self-coiling Shutters. Any person requiring such will please apply. 68/388.

Half-horse power Steam Engine complete, or exchange for Modern Counter Glass Case or Shop Lamp. 47/388.

An excellent, square, walnut-wood Camera with Lenses. Complete. By Shepherd, London. 30/. 19/388.

150 lbs. Hardwick and Guerin's Glycerine Dip, at 3d. per lb. 25/388.

Bottles, Drawers, Scales, and every requisite for branch or country shop. Cheap. Near Manchester. 34/388.

Amateurs' Printing Press, with Office complete. Cost £5 10/. Will take £4, or offers. 33/388.

Garrod's "Materia Medica," 7/6. 2 Lescher's "Elements." 5/ each. Equal to new. 37/388.

Royles' "Materia Medica," 3rd edition, 5/. Squire's "Companion," 3rd edition, 5/. 35/388.

Tall Cylindrical Show Bottle, from Paris Exhibition, 30/. Pair of Window Globes and Colours, 30/. Gas Stove, 10/. Counter Scales, 5/; or offers for any or all. 42/388.

New Sixpenny Violet and Green Inks, Liquid Gum, Cocoanut Sweetmeat, Cayenne, Gold Paint, and Liebig's Malted Food. For other proprietaries or offers. 45/388.

Rotary Pill Machine, nearly new, makes about 4 lbs. pills per hour. Price £6 cash, or leading patents at nett prices. 54/388.

One of Brodie and Middleton's complete sets of Oxyhydrogen Apparatus, Usual price, £8 10s. Offers wanted. Perfect in every respect. 62/388.

Pill Machine, Counter Scales, Wedgwood Mortars, 2 five-gallon Show Globes, Stoppered Stock Bottles, all sizes. 52/388.

Pair handsome Specie Jars. Maw's Fig. 1 24 in. Mahogany Stands. Or in exchange for 5 or 6 feet Show Case, Bent Plate Glass. 29/388.

Owen's Receipts, Aërated Mineral Waters, Continental Liqueurs, Fruit Syrups. 3/6; for 2/. Postage 2d. extra. 36/388.

Smith's Smaller "Latin-English Dictionary," 5/. Squire's "Companion to the Pharmacopœia." Seventh edition, 7/6. Both equal to new. 60/388.

Bell's "Progress Pharmacy," 1/. "Medical Pocket-book," 1/2. Case Dissecting Instruments, quite new, 14/. Portions of Cassell's and Wood's "Natural Histories," 59/388.

Ure's "Dictionary of Arts, Manufactures, and Mines." Cost 70s., for 30/. Ure's "Dictionary of Chemistry," 10/. Muspratt's "Chemistry," 40/. Lindley's "Elements of Botany," 4/. Fownes' "Manual," 5/; or offers. 41/388.

Six De Roos' Renal Pills, 1/1½. Take 3/9. Three Godfrey's Extract Elder Flowers, perfectly clean. Three ditto, rather soiled. Take 10/. About ½-cwt. English Honey. Old, dark, 6d. per lb. Sample sent. 18/388.

An assortment of Pulvermacher's Chain Bands and Galvanic Batteries, in perfect condition, and at a fair reduction. The whole or part will be disposed of. 58 388.

Three dozen Denoual's best Copaiba Capsules (green label). 12/6. 12 bottles (1/ each) Bayley's Antiseptic Salt. 5/. 1 dozen Rumsey's Jewellery Tablets (2/), and 2 dozen Furniture Polish (1/), at half retail prices. 3/400.

Mahogany Dispensing Screen, plate glass panel and gold writing, "Prescriptions prepared," and shifting shelves at back. 5 ft. 10 in. long, 8 in. wide, 15 in. high. £3. 21/388.

Several tins of Goulding's Flower and Plant Food. Will take 6/ per dozen for 1/ size, and 2/6 each for 5/ size. Also 1 dozen Maw's Patent Disinfecting Cup. Take 2/6 the dozen. And six 4 lb. tins Tomlinson's Sheep Ointment. Take 2/6 per tin. 20/388.

Electro-Magnetic Induction Apparatus. Mahogany Box. With 5 horseshoes, 10½ in. long, 4½ in. wide, 5½ in. high. Wants cleaning. Complete set of New Sydenham Society's Books, from 1858 till now. 49 volumes (new). Large Genève Mandoline (timbres) or Music Box. 8 airs. 25 in. long, 8 in. high, 8¼ in. wide. Large number of "Pharmaceutical Journals," unbound. Any reasonable offer will be accepted for any of the above. 22/388.

Two Specie Jars, labelled in scroll and phœnix patterns, 20 and 21 in. high. 25/ each. Maw's 10/. Flat Mahogany Counter Case, 6/. One neat Mahogany Perfumery Stand, with gold lettered Tablet, and 12 2-ounce stoppered bottles, with mirrors behind, 15/. Bell metal Mortar, 7½ lbs. weight, 6/. 100 doz. Silverlock's Engraved Shop Labels, yellow, with painted borders, all large and middle size. An offer wanted. 48/388.

Miller's "Chemical Physics," "Inorganic Chemistry," "Organic Chemistry," 3 vols. Cost £2 17/. For half-price. Pereira's "Materia Medica," according to British Pharmacopœia. Cost 21/. For 14/. Dr. Equisier's Irrigateur, Maw's. Cost 19/6. Good as new. 15/. Two Upright Show Bottles, with 2/9 cut-glass Stoppers, filled with blue and orange colours. 6/ each. Or with solid Mahogany Stands. 7/6 each. Tomlinson's set Extracting Instruments in pouch. Cost 19/6. Nearly new. 12/6. 49/388.

Two (3 and 4 gallon) copper steam-jacketed Pans, Boiler and Connections. (By Coffey.) Never used. Cost £3£. "Pharmaceutical Journal," first and second (complete), recently bound, half roan. Also Nos. 1 to 14, third series. Offers wanted for either, or write for particulars. Plumbe's "Skin Diseases" (21/), 5/6. "Selecta e Præscriptis," 14th edition (5/), 3/. (Covers a little soiled, otherwise clean.) Owen's "Practice of Perfumery" (2/6), 1/6. Owen's "Manual of Pharmacy" (1/). 9d. Slater's "Manual of Colours" (8/), 5/6. Fox's "Eczema" (3/6), 2/3. Midland Counties' "Price List" (1/), 9d. (New and clean.) Post free. 15/388.

WANTED.

Oliver's "Elementary Botany." State price. 50/388.

Round Fronted Counter Glass Cases. 56/388.

A good Marble Top Soda-water Stand. 31/388.

"Pharmaceutical Register," 1871. Owen's "Compendium." Cheap. Good condition. 16/388.

Beasley's "Druggist's Receipt Book," Pereira on the "Vegetable Kingdom," Mohr's "Practical Pharmacy." 57/388.

Medium-sized Hewitt's Pulverising Machine, complete. 14/388.

In good condition, Redwood's "Gray's Supplement," and Cooley's "Practical Receipts." 61/388.

A Binocular Microscope, new or second hand, of good power 53/388.

Two or three of Burrow's Soda Water Racks, 12 doz. size preferred. Send particulars as to price, etc. 13/388.

A Mill for grinding Tartaric Acid, or other white powders 24/388.

The Dental Works of Harris, Fownes, Taft, Fox, Bond. State price and condition. 27/388.

A No. 1 or 2 Statham's Economic Laboratory. State price and condition. 30/388.

A Circular-fronted Glass Case with Slides and Mirror Back, in good condition. 5 ft. long, 23 in. wide. 46/388.

A good Receipt for Ginger Beer Powders, for bottling, also for rheumatic mixture. 32/388.

Six Stoppered Rounds for Perfumes, as Fig. 25, p. 112, Maw's catalogue. Four 2 lb. Oil Bottles. Twelve 8 oz. and twelve 4 oz. Stoppered Rounds. 63/388.

"Pharmacopœia Londinensis," Bentley's "Botany," 2nd edition; Lescher's "Elements of Pharmacy," or Smith's "Pharmaceutical Guide." State price and condition. 23/388.

A good Microscope. Also Carpenter or Hogg "On the Microscope." Bentley's "Manual of Botany." Attfield's "Introduction to Pharmaceutical Chemistry," last edition. 17/388.

A Mahogany or Ebonised Counter Case, 6 to 8 feet long, 18 in. wide, and about 6 in. high. If opened at back preferred. Style as No. 96, Maw. State lowest price and condition. 28/388.

Watts' "Dictionary of Chemistry," the set or any volume; state lowest price. Paris "Pharmacologia." Mohr and Redwood's "Practical Pharmacy." Loudon's "Encyclopœdia of Botany." The "Laboratory," from the commencement. 39/388.

Watts' "Chemical Dictionary; Pereira's "Materia Medica, the last 3 volume edition. Pill Machines, 4 grains and 1 grain. Tincture Press. Balance. Chemical or Pharmaceutical Apparatus. Electric, Galvanic, and Photographic Apparatus, or Sundries. 26/388.

TRADE REPORT.

THE addition of 50 per cent. to the income-tax is a matter of serious concern to all the trading classes of the country. On them the weight of the tax falls most severely; to them the hardship of an appeal is the greatest; and it is their taxes which are extracted with the most rigorous exactitude. We have had occasion in this column for two successive years to comment on Mr. Lowe's clear and business-like financial scheme with great satisfaction. His "form" this year (if we may adopt a sporting expression is too bad to be true. One would think that not only his genius, but almost the resources of the country had been exhausted when we find him falling back on a scheme which not many hours before he himself had warmly condemned. His second budget of 1871 was perhaps an improvement on its immediate predecessor, which is as nearly as possible the very faintest expression of praise that can well be conceived.

To secure enough to satisfy the tax-gatherer's demands, without interfering with our usual luxuries, it is evident that we must all put our shoulders to our respective wheels with a little extra energy. Chemists and druggists who will commence to keep an intelligent watch on the market, as we shall endeavour to report them month by month, will, we hope, find themselves able to realise in a pleasant sense the popular Latin joke, extracting *ex illâ luce* enough *lucellum* to make the balance correct.

The chemical reports still continue encouraging, although manufacturers are perhaps not quite so pressed with export orders as they were two months since.

Soda Crystals are in good demand at 5s. to 10s. a ton higher. The price at Newcastle is rather easier, and probably will remain so for some time. Caustic, white and and cream, are in request both for present and forward delivery, and makers are unwilling to contract forward. Soda Ash is scarce. Bleaching Powder has rather diminished in demand and in price; although makers still incline to hold for higher prices. The quotations are, however, still considerably above those of last year, but contracts for the year have been concluded on easier terms. Muriate of Potash has been moderately required at the rates of last week. Nitrate of Soda is again weaker. Several contracts have been made in Sulphate of Ammonia, at prices rather lower than present quotations.

Tartaric Acid is lower; foreign 1s. 3¼d., English 1s. 3½d. Citric neglected at 2s. 8½d. Oxalic scarce, and advanced to 9½d.

Chlorate of Potash sells readily at 1s. 2½d., and at the end of last week it advanced to 1s. 3d. Prussiate and Bi-Chromate in request at last quotations.

Sal-Ammoniac firm.

Sulphate of Ammonia not quite so firm. Best white sold at £19 per ton, Carbonate selling at 6d. per lb., Muriate at 26s. per cwt.

Alum.—In limited request at £6 12s. 6d. to £6 15s. lump, loose and in tierces, and £7 in barrels; Ground in bags £7 5s. to £7 10s. per ton.

Sulphate Copper.—Sales at £22 10s. per ton to some extent.

Quicksilver has again declined, and a fall of 2d. per pound in mercurial preparations is the result.

The Indigo sales went off with fair spirit. Lower qualities were slightly depreciated in price, but the best brands secured former prices, and sometimes an advance of 3d.

The competition at the last drug sales was lively, and transactions were somewhat extensive. The disturbances in France of course tend to limit home speculation, but the home demand is satisfactory. There is a good demand for all kinds of Cinchona Bark, and Red is reported very scarce.

There has been but little demand for Camphor during the month, and prices have declined. About 400 cases China have been sold at 65s., and a small lot of old dry Japan at 70s. The *Ajax* has arrived with 3,660 packages.

Cardamoms have shown a steady decline during the month, and leave off at least 6d. or 8d. below last month's sales; too many have been offered at auction. Since the last drug sales better prices have been obtained, good plump selling at 8s. 2d., and now held more firmly.

Cubebs.—Nothing offered at auction, and no business privately to report.

Dragon's Blood.—Little demand. 42 cases, 18 common Lump, sold at £3 15s.; remainder taken out at £4 up to £6 10s for good middling, a few cases selling privately at £6.

Musk in fair demand.

Senna.—Tinnivelly has sold well at higher rates, and the greater portion offered found buyers.

Really fine qualities of Rhubarb are of ready sale, but the common and mixed kinds are quiet.

Castor Oil is in rather better demand, especially the pale kinds, 1,700 cases offered, some quantity sold, pale 5½d. to 5¾d.; fair seconds, 4¼d to 5d.

There has been a steady decline in Shellac all through the month, chiefly of the Native and Garnet, sales being made from 7s. 6d. to 10s. under last month's prices. 1000 cases have been offered at auction, and about 600 found buyers, Native orange selling the early part of the month at 110s. to 115s., towards the close fetched only 105s. for good, and 107s. 6d. for pale orange.

Star Aniseed.—100 cases bought in at £5 10s.

Croton.—60 packages mixed, a few dark sold 71s. to 75s., being rather easier.

Cape Argols have met with a ready sale, and at higher prices, 120 bags good white selling at 76s. to 78s. 6d.; red 68s.

Cutch has been dull during the month, and price has declined, supplies being in excess of demand.

Gambier has been quiet, and declined about 3d. per cwt.

Galls, China.—504 cases offered and bought in with exception of a few lots sold at 47s. 6d. 90 cases sold privately at 48s.

Safflower.—The month opened dull, but a better demand sprang up towards the end, chiefly for good to fine descriptions, lower prices being submitted to.

Turmeric.—Market easier and very quiet.

Saltpetre has ruled higher during the month, chiefly for the finer kinds.

In Oils there is very little change. Linseed remains steady. Rape is in moderate demand. For Olive the market continues inactive. Turpentine is only in limited demand, and Petroleum has not altered.

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mincing lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.]

CHEMICALS.

	1871.					1870.				
	s.	d.		s.	d.	s.	d.		s.	d.
ACIDS—										
Acetic ... per lb.	0	4	to	0	0	0	4	to	0	0
Citric ... per lb.	2	8½	..	0	0	2	5	..	2	6
Hydrochlor. ... per cwt	4	0	..	7	0	4	0	..	7	0
Nitric ... per lb.	0	5	..	0	5½	0	5	..	0	5½
Oxalic ... ,,	0	9	..	0	0	0	8	..	0	0
Sulphuric ... ,,	0	0¾	..	0	1	0	0¾	..	0	1
Tartaric crystal .. ,,	1	3¼	..	0	0	1	2¼	..	0	0
powdered ,,	1	4	..	0	0	1	2¾	..	0	0
ANTIMONY ore ... per ton	240	0	..	280	0	340	0	..	400	0
crude .. per cwt	36	0	..	38	0	40	0	..	0	0
regulus.. ,,	46	0	..	47	0	80	0	..	0	0
star .... ,,	48	0	..	49	0	80	0	..	0	0
ARSENIC, lump ... ,,	15	6	..	16	0	16	0	..	16	6
powder .... ,,	6	9	..	7	3	7	3	..	7	6
BRIMSTONE, rough .. per ton	160	0	..	0	0	160	0	..	0	0
roll ... per cwt	10	0	..	10	3	11	0	..	0	0
flour .... ,,	12	0	..	13	0	12	0	..	13	0
IODINE, dry ... per oz.	0	10½	..	0	0	0	9	..	0	9½
IVORY BLACK, dry .. per cwt.	0	0	..	0	0	0	0	..	0	0
MAGNESIA, calcined .. per lb.	1	1	..	0	0	1	2	..	0	0
MERCURY ... per bottle	200	0	..	0	0	137	0	..	138	0
MINIUM, red ... per cwt.	20	6	..	21	0	20	9	..	21	0
orange .... ,,	31	6	..	0	0	31	6	..	32	6
PRECIPITATE, red ... per lb.	3	6	..	0	0	2	6	..	0	0
white .. ,,	3	5	..	0	0	2	5	..	0	0
PRUSSIAN BLUE ... ,,	0	0	..	0	0	0	0	..	0	0
SALTS—										
Alum ... per ton	135	0	..	140	0	145	0	..	150	0
powder .... ,,	145	0	..	150	0	165	0	..	170	0
Ammonia:										
Carbonate ... per lb.	0	6	..	0	6¼	0	5¾	..	0	6
Hydrochlorate, crude, white ... per ton	460	0	..	560	0	480	0	..	560	0
British (*see* Sal Ammoniac)										
Sulphate ... per ton	370	0	..	390	0	320	0	..	325	0
Argol, Cape ... per cwt	45	0	..	79	0	50	0	..	67	6
France .... ,,	0	0	..	0	0	40	0	..	50	0
Oporto, red ,,	22	0	..	24	0	22	0	..	24	0
Sicily ... ,,	0	0	..	0	0	32	0	..	40	0
Naples, white ,,	9	0	..	0	0	0	0	..	0	0
Florence, white	0	0	..	0	0	0	0	..	0	0
,, red ,,	0	0	..	0	0	0	0	..	0	0
Ashes (*see* Potash and Soda)										
Bleaching powd.. per cwt.	15	9	..	16	0	9	6	..	0	0
Borax, crude .... ,,	25	0	..	40	0	25	0	..	35	0
(Tincal) .. ,,	45	0	..	60	0	50	0	..	62	0
British refnd. ,,	68	0	..	70	0	68	0	..	70	0
Calomel ... per lb.	3	4	..	0	0	2	5	..	0	0
Copper:										
Sulphate ... per cwt.	22	6	..	25	0	23	6	..	24	0
Copperas, green .. per ton	50	0	.	60	0	50	0	..	60	0
Corrosive Sublimate .. p. lb.	2	8	..	0	0	1	11	..	0	0
Cr. Tartar, French, p. cwt.	95	0	..	97	6	83	0	..	84	0
Venetian grey ,,	95	0	..	97	6	83	0	..	0	0
brown ,,	75	0	..	85	0	0	0	..	0	0
Epsom Salts ... per cwt.	6	0	..	7	0	6	0	..	7	0
Glauber Salts .... ,,	4	6	..	6	0	4	6	..	6	0
Lime:										
Acetate, white, per cwt.	12	6	..	23	0	12	6	..	23	0
Magnesia: Carbonate ,,	42	6	..	0	0	42	6	..	0	0
Potash:										
Bichromate ... per lb.	0	5	..	0	5¼	0	5¼	..	0	5½
Carbonate:										
Potashes, Canada, 1st sort ... per cwt.	34	0	..	34	6	32	0	..	0	0
Pearlashes, Canada, 1st sort ... per cwt.	40	0	..	0	0	34	0	..	0	0
Chlorate ... per lb.	1	3	..	0	0	0	9¾	..	0	10
Prussiate ... per lb.	1	1	..	0	0	1	0	..	0	0
red .... ,,	1	9½	..	1	10	1	9½	..	1	10
Tartrate (*see* Argol and Cream of Tartar)										
Potassium:										
Chloride ... per cwt.	12	0	..	12	6	9	6	..	0	0
Iodide ... per lb.	14	6	..	15	0	11	6	..	12	0
Quinine:										
Sulphate, British, in bottles ... per oz.	7	2	..	0	0	5	10	..	0	0
Sulphate, French ,,	6	10	..	7	0	5	6	.	0	0
Sal Acetos ... per lb.	0	11½	..	0	0	0	10	..	0	0
Sal Ammoniac, Brit. cwt.	41	0	..	42	0	41	0	..	42	0
Saltpetre:										
Bengal, 6 per cent or under ... per cwt.	28	0	..	29	6	24	0	..	25	6
Bengal, over 6 per cent. per cwt.	26	0	..	27	0	22	6	..	23	6
Madras ... ,,	0	0	..	0	0	21	6	..	22	0
Bomb. & Kurrachee p. ct.	0	0	..	0	0	0	0	..	0	0
European ... ,,	0	0	..	0	0	25	0	..	26	0
British, refined ,,	30	6	..	31	6	27	0	..	27	6
Soda: Bicarbonate, p. cwt.	11	3	..	0	0	10	0	..	0	0
Carbonate:										
Soda Ash .... per deg.	0	2	..	0	2⅛	0	1¾	..	0	0
Soda Crystals per ton	97	6	..	0	0	85	0	..	90	0
Hyposulphite .. per cwt.	18	0	..	0	0	13	6	..	14	0
Soda:										
Nitrate ... per cwt.	16	6	to	0	0	17	0	to	18	0
SUGAR OF LEAD, White, cwt.	39	0	..	40	0	39	0	..	40	0
Brown ... ,,	26	0	..	28	0	26	0	..	28	0
SULPHUR (*see* Brimstone										
VERDIGRIS ... per lb.	1	0	..	1	2	1	0	..	1	2
VERMILION, English .. per lb.	3	8	..	3	10	2	4	..	2	6
China .... ,,	3	6	..	0	0	3	0	..	3	1

DRUGS.

	1871.					1870.				
	s.	d.		s.	d.	s.	d.		s.	d.
ALOES, Hepatic ... per cwt.	70	0	..	210	0	60	0	..	160	0
Socotrine .. ,,	120	0	..	325	0	100	0	..	220	0
Cape, good .. ,,	23	0	..	28	0	26	0	..	28	6
Inferior ,,	17	0	..	22	0	17	0	..	25	0
Barbadoes ,,	70	0	..	200	0	80	0	..	220	0
AMBERGRIS, grey ... oz.	25	0	..	33	0	25	0	..	28	0
BALSAMS—										
Canada ... per lb.	0	10	..	0	11	0	10½	..	1	0
Capivi ... ,,	1	10	..	1	11	1	9	..	1	11
Peru ... ,,	9	2	..	9	3	7	8	..	7	10
Tolu ... ,,	1	9	..	1	11	2	6	..	2	8
BARKS—										
Canella alba ... per cwt.	15	0	..	25	0	20	0	..	34	0
Cascarilla ... ,,	20	0	..	36	0	22	0	..	34	0
Peru, crown & grey per lb.	0	10	..	2	6	0	10	..	2	4
Calisaya, flat ,,	3	2	..	3	6	3	6	..	3	8
quill ,,	3	2	..	3	6	3	6	..	3	7
Carthagena ,,	0	10	..	1	10	1	0	..	1	9
Pitayo .... ,,	0	10	..	1	6	0	10	..	1	6
Red ... ,,	2	0	..	7	0	1	6	..	7	0
Bucho Leaves ... ,,	0	6	..	0	10	0	3	..	0	6
CAMPHOR, China .. per cwt.	60	0	..	65	0	82	6	..	87	6
Japan ,,	67	6	..	70	0	87	6	..	90	0
Refin Eng. per lb.	1	2	..	1	3	1	3	..	0	0
CANTHARIDES ... ,,	5	3	..	0	0	4	0	..	0	0
CHAMOMILE FLOWERS p. cwt	40	0	..	62	6	40	0	..	72	6
CASTOREUM ... per lb.	3	0	..	30	0	4	0	..	32	0
DRAGON'S BLOOD, lp. p. cwt.	80	0	..	210	0	90	0	..	200	0
FRUITS AND SEEDS (*see also* Seeds *and* Spices)										
Anise, China Star pr cwt.	110	0	..	0	0	120	0	..	130	0
German, &c. ,,	44	0	..	50	0	28	0	..	40	0
Beans, Tonquin .. per lb.	0	9	..	1	6	1	0	..	1	6
Cardamoms, Malabar good ,,	7	0	..	7	9	8	3	..	9	6
inferior ,,	5	0	..	6	9	6	6	..	8	0
Madras ,,	4	0	..	7	3	5	0	..	8	8
Ceylon ,,	2	8	..	2	10	2	6	..	2	10
Cassia Fistula .. per cwt.	12	0	..	30	0	16	0	..	35	0
Castor Seeds .. ,,	10	0	..	12	0	10	0	..	12	0
Cocculus Indicus ,,	13	0	..	14	6	19	0	..	20	0
Colocynth, apple .. per lb.	0	3	..	0	6	0	4¾	..	0	8
Croton Seeds .. per cwt.	75	0	..	77	0	46	0	.,	55	0
Cubebs ... ,,	25	0	..	28	0	27	6	..	32	6
Cummin ... ,,	90	0	..	100	0	100	0	..	110	0
Dividivi ... ,,	12	0	..	14	0	12	0	..	14	0
Fenugreek ... ,,	17	0	..	25	0	13	0	..	15	0
Guinea Grains .. ,,	23	0	..	24	0	31	6	..	34	0
Juniper Berries ,,	15	0	..	15	6	7	6	..	8	6
Myrobalans .... ,,	10	0	..	15	6	8	0	..	16	0
Nux Vomica .... ,,	10	6	..	14	0	10	0	..	14	0
Tamarinds, East India ,,	5	0	..	12	0	10	0	..	16	0
West India, new ,,	10	0	..	16	6	10	6	..	20	0
Vanilla, large .... per lb.	27	0	..	37	6	24	0	..	32	0
inferior ,,	10	0	..	25	0	12	0	..	22	0
Wormseed per cwt.	0	0	..	0	0	35	0	..	0	0
GINGER, Preserved, in bond (duty 1d. per lb.) per lb.	0	6	..	0	8	0	6	..	0	
GUMS (*see separate list*)										
HONEY, Chili .... per cwt.	36	0	..	46	0	30	0	..	47	
Cuba .... ,,	22	0	..	36	0	22	0	..	36	0
Jamaica .. ,,	31	0	..	52	0	31	0	..	55	0
IPECACUANHA .... per lb.	5	2	..	5	6	6	9	..	7	0
ISINGLASS, Brazil .. ,,	2	8	..	4	5	3	0	..	4	6
Tongue sort ,,	3	6	..	5	0	3	2	..	4	9
East India ,,	1	6	..	3	11	1	10	..	3	11
West India ,,	3	9	..	4	2	3	9	..	4	3
Russ. long staple	5	6	..	8	0	5	0	..	8	0
,, leaf ,,	3	0	..	5	6	3	0	..	5	0
,, Simovia	2	0	..	3	6	1	6	..	2	6
JALAP, good ... ,,	1	9	..	3	2	2	8	..	3	4
infer. & stems ,,	0	6	..	1	7	0	6	..	2	7
LEMON JUICE ... per degree	0	1	..	0	1⅓	0	1	..	0	1½
LIQUORICE, Spanish per cwt.	0	0	..	0	0	60	0	..	65	0
Italian ,,	40	0	..	60	0	48	0	..	63	0
MANNA, flaky .... per lb.	3	6	..	4	0	3	0	..	3	6
small ... ,,	2	0	..	2	2	1	6	..	1	9
MUSK ... per oz.	21	0	..	36	0	18	0	..	34	0
OILS (*see also separate List*)										
Almond, expressed per lb.	1	2	..	0	0	1	0	..	0	0
Castor, 1st pale .... ,,	0	5¼	..	0	5¾	0	4¾	..	0	5
second .... ,,	0	4¼	..	0	5	0	4½	..	0	4½
infer. & dark ,,	0	4¼	..	0	4½	0	4	..	0	4½
Bombay (in casks)	0	0	..	0	0	0	4	..	0	4½
Cod Liver ... per gall.	5	0	..	6	0	5	0	..	6	3
Croton ... per oz.	0	3½	..	0	4½	0	3½	..	0	4½
Essential Oils:										
Almond ... per lb.	42	0	..	0	0	42	0	..	0	0
Anise-seed ... per lb.	8	5	..	8	6	8	7	..	0	0
Bay ... per cwt.	65	0	..	70	0	65	0	..	70	0
Bergamot ... per lb.	8	0	..	15	0	8	0	..	15	0
Cajeput, (in bond) per oz.	0	2½	..	0	3	0	2½	..	0	3
Caraway ... per lb.	5	6	..	6	3	5	6	..	6	3
Cassia ... ,,	4	2	..	4	4	4	7	..	0	0
Cinnamon ... per oz.	1	0	..	4	6	1	0	..	4	6
Cinnamon-leaf .. ,,	0	2	..	0	6	0	2	..	0	0

	1871.				1870.			
Essential Oils, *continued*:—	s.	d.	s.	d.	s.	d.	s.	d.
Citronelle ......per oz.	0	2	0	2¼	0	2½	0	2½
fine.... ,,	0	2½	0	0	0	3	0	3½
Clove............per lb.	2	4	0	0	2	6	0	0
Juniper .... ,,	1	0	2	0	1	0	2	0
Lavender........ ,,	3	0	4	3	3	0	4	3
Lemon.......... ,	5	0	0	0	5	0	7	0
Lemongrass ....per oz.	0	2¾	0	3	0	3½	0	3½
Neroli .... ,,	0	5	0	0	0	5	0	6
Nutmeg .... ,,	0	4	0	7	0	4	0	7¾
Orange..........per lb.	5	0	7	0	5	0	7	0
Otto of Roses....per oz.	12	0	20	0	13	0	20	0
Patchouli ...... ,,	3	0	0	0	6	0	0	0
Peppermint:								
American ....per lb.	15	6	17	0	14	0	14	0
English ...... ,,	33	0	34	0	32	0	42	0
Rosemary ...... ,,	1	0	2	0	1	9	2	0
Sassafras........ ,,	3	0	0	0	4	0	4	6
Spearmint ...... ,,	4	0	16	0	4	0	16	0
Thyme.......... ,,	1	10	2	0	1	10	2	0
Mace, expressed .. per oz.	0	1½	0	3	0	1	0	2½
Opium, Turkey ...... per lb.	24	0	27	0	30	0	37	0
inferior ...... ,,	15	0	23	0	25	0	35	0
Quassia(bitter wood) per ton	60	0	70	0	140	0	150	0
Rhubarb, China, good and fine ....per lb.	2	3	6	0	4	6	8	0
Good, mid. to ord. ,,	0	4	2	0	0	6	4	3
Dutch trimmed ,,	0	0	0	0	9	6	10	0
Russian .... ,,	0	0	0	0	0	0	0	0
ROOTS—Calumba..per cwt.	25	0	42	0	27	0	35	0
China .... ,,	25	0	28	0	33	0	43	0
Galangal .... ,,	15	0	17	0	17	0	20	0
Gentian .... ,,	27	0	30	0	17	0	18	0
Hellebore ...... ,,	30	0	35	0	22	0	30	0
Orris............ ,,	65	0	80	0	50	0	52	0
Pellitory .... ,,	58	0	60	0	58	0	00	0
Pink..............per lb.	0	8	1	1	0	7	0	10
Rhatany.......... ,,	0	5	0	11	0	5	0	10
Seneka........... ,,	4	6	5	0	2	10	0	0
Snake .... ,,	0	11	1	0	1	0	0	0
Saffron, Spanish .. ,,	35	0	44	0	50	0	56	0
Salep ....per cwt.	110	0	0	0	110	0	0	0
Sarsaparilla, Lima per lb.	0	6	0	7½	0	6	0	7
Para.............. ,,	1	0	1	3	1	0	1	3
Honduras .... ,,	1	2	1	7	1	2	1	6
Jamaica .... ,,	1	7	3	2	2	6	4	4
Sassafras ....per cwt.	0	0	0	0	0	0	0	0
Scammony, Virgin ..per lb.	25	0	29	0	23	0	32	0
second & ordinary ,,	10	0	23	0	10	0	23	0
Senna. Bombay .... ,,	0	3½	0	5½	0	3½	0	6
Tinnivelly .... ,,	0	3½	1	6	0	3	1	4
Alexandria........ ,,	0	3½	1	7	0	4½	1	7
Spermaceti, refined.. ,,	1	6	1	7	1	6	1	7
American .... ,,	1	3	1	4	1	6	0	0
Squill.............. ,,	0	1¼	0	1¾	0	1¼	0	2¼

GUMS.

	1871.				1870.			
Ammoniaci drop ..per cwt.	80	0	160	0	200	0	240	0
lump .. ,,	55	0	75	0	120	0	190	0
Animi, fine washed ,,	260	0	320	0	300	0	340	0
bold scraped ,,	200	0	250	0	220	0	290	0
sorts ...... ,,	120	0	200	0	100	0	200	0
dark ...... ,,	75	0	110	0	75	0	100	0
Arabic, E. I., fine pale picked .. ,,	67	0	75	0	76	0	85	0
srts, gd. to fin ,,	55	0	05	0	05	0	75	0
garblings.. ,,	25	0	45	0	40	0	60	0
Turkey, pick. gd to fin. ,,	160	0	200	0	170	0	210	0
second & inf. ,,	85	0	155	0	90	0	160	0
in sorts .. ,,	70	0	90	0	75	0	100	0
Gedda.... ,,	38	0	44	0	33	0	44	0
Barbary, white .. ,,	65	0	70	0	80	0	85	0
brown .. ,,	48	0	50	0	70	0	75	0
Australian ...... ,,	20	0	42	0	23	0	45	0
Assafœtida, com. to gd ,,	40	0	100	0	40	0	100	0
Benjamin, 1st qual. ,,	160	0	400	0	280	0	460	0
2nd ,, ,,	150	0	215	0	140	0	220	0
3rd ,, ,,	40	0	85	0	50	0	100	0
Copal, Angola red ,,	120	0	140	0	90	0	102	0
Benguela .. ,,	90	0	95	0	90	0	102	0
Sierra Leone..per lb.	0	2	0	11	0	3¾	1	2½
Manilla ....per cwt.	16	6	43	0	30	0	52	0
Dammar, pale .... ,,	60	0	64	0	77	6	85	0
Euphorbium ...... ,,	10	0	0	0	13	0	14	0
Galbanum .... ,,	200	0	260	0	160	0	260	0
Gamboge, pckd. pipe ,,	260	0	300	0	290	0	230	0
Guaiacum ....per lb.	0	0	2	7	0	9	1	6
Kino..............per cwt.	60	0	120	0	60	0	140	0
Kowrie, rough.... ,,	25	0	34	0	40	0	51	0
scraped .. ,,	35	0	80	0	52	0	105	0
Mastic, picked......per lb.	0	0	7	0	5	0	6	0
Myrrh, gd. & fine per cwt.	120	0	160	0	190	0	233	0
sorts......	80	0	115	0	05	0	185	0
Olibanum, p. sorts	77	0	80	0	82	6	87	0
amber & ylw.	07	0	75	0	75	0	82	0
garblings.... ,,	10	6	44	0	26	0	50	0
Senegal ....per cwt.	65	0	85	0	77	6	95	0
Sandarac .... ,,	65	0	110	0	62	6	100	0
Thus.............. ,,	20	0	25	0	13	0	14	0
Tragacanth, leaf.. ,,	200	0	310	0	220	0	380	0
in sorts ,,	110	0	180	0	115	0	210	0

OILS.

	1871.				1870.			
Seal, pale..........per tun	£37	10	0	0	£42	10	0	0
yellow to tinged ,,	33	0	36	0	36	0	41	0
brown........ ,,	31	0	0	0	34	0	35	0
Sperm, body ...... ,,	82	0	83	0	91		0	0
headmatter ,,	83	0	0	0	91	0	0	0
Oils, *continued*:—	£	s.	£	s.	£	s.	£	s.
Cod................ per tun	35	0	0	0	41	0	42	0
Whale, South Sea, pale ,,	34	0	34	10	38	0	0	0
yellow ,,	33	0	33	10	36	0	37	0
brown ,,	32	0	0	0	36	10	37	0
East India, Fish ,,	28	0	29	0	32	0	33	0
Olive, Galipoli ...... ,,	48	10	49	0	56	0	0	0
Trieste ...... ,,	48	0	0	0	51	0	0	0
Levant ...... ,,	46	0	47	0	51	0	52	0
Mogador...... ,,	47	0	0	0	52	0	0	0
Spanish ...... ,,	48	0	0	0	0	0	0	0
Sicily .... ,,	47	0	0	0	0	0	0	0
Cocoanut, Cochin.. per ton	49	0	50	0	45	0	46	0
Ceylon .. ,,	40	5	40	10	39	10	40	0
Sydney ,,	33	0	38	10	34	10	39	0
Ground Nut and Gingelly:								
Bombay	0	0	0	0	0	0	0	0
Madras.................	43	0	44	0	43	0	0	0
Palm, fine	37	0	0	0	39	10	40	0
Linseed	32	5	0	0	32	5	0	0
Rapeseed, English, pale ..	44	10	0	0	45	10	46	0
brown........	42	0	42	10	43	0	43	10
Foreign pale....	47	0	43	0	47	0	0	0
brown........	43	0	0	0	45	10	0	0
Cottonseed	27	0	32	0	31	0	30	0
Lard......................	02	0	64	0	72	0	75	0
Tallow	36	0	0	0	35	0	0	0
Turpentine, American, cks.	36	6	0	0	30	6	0	0
Petroleum, Crude	0	0	0	0	14	0	0	0
	s.	d.	s.	d.	s.	d.	s.	d
refined, per gall.	1	5	1	5½	1	9½	1	10
Spirit ,,	0	11	1	0	1	4	1	6

SEEDS.

	1871.				1870.			
Canary ....per qr.	40	0	48	0	40	0	46	0
Caraway, English per cwt.	0	0	0	0	45	0	50	0
German, &c.....	0	0	0	0	27	0	41	0
Coriander	0	0	0	0	0	0	0	0
Hemp ....per qr.	44	0	48	0	44	0	48	0
Linseed, English per qr...	0	0	0	0	0	0	0	0
Black Sea & Azof	63	0	0	0	58	9	0	0
Calcutta ,,	63	3	63	6	68	6	61	6
Bombay ,,	64	3	64	0	61	6	62	0
St. Petrsbrg. ,,	01	0	62	0	56	0	57	0
Mustard, brown..per bshl.	0	0	0	0	0	0	0	0
white.. ,,	9	0	9	0	0	0	0	0
Poppy, East India per qr.	60	0	61	0	58	6	0	0

SPICES.

	1871.				1870.			
Cassia Lignea ....per cwt.	105	0	121	0	108	0	128	0
Vera .... ,,	45	0	80	0	47	0	88	0
Buds .... ,,	140	0	150	0	155	0	175	0
Cinnamon, Ceylon,								
1st quality ....per lb.	2	2	3	5	1	10	3	7
2nd do. ...... ,,	1	8	3	4	1	6	3	4
3rd do. ...... ,,	1	7	3	2	1	3	3	1
Tellicherry ...... ,,	0	0	0	0	0	0	0	0
Cloves, Penang.... ,,	1	1	1	2	0	10¾	1	0
Amboyna........ ,,	0	4	0	6½	0	4½	0	5
Zanzibar .... ,,	0	2⅞	0	3	0	3	0	0
Ginger, Jam., fine per cwt.	80	0	180	0	100	0	200	0
Ord. to good .. ,,	35	0	77	0	85	0	80	0
African.......... ,,	30	0	0	0	25	6	26	0
Bengal .... ,,	25	0	26	0	26	0	0	0
Malabar .... ,,	0	0	0	0	26	0	27	0
Cochin .... ,,	35	0	100	0	35	0	125	0
Pepper, Blk., Malabar, per lb.	0	6	0	0½	0	5½	0	6
White, Tellicherry ,,	0	9½	1	2½	0	9	1	5
Cayenne .... ,,	0	8½	1	4½	0	9	1	2½
Mace, 1st quality ..per lb.	3	3	3	10	3	0	3	9
2nd and inferior.. ,,	2	8	3	2	2	2	2	11
Nutmegs, 78 to 60 to lb.	2	7	3	10	2	7	4	4
90 to 80 ,,	2	3	2	6	2	2	2	6
132 to 95 ,,	1	9	2	3	1	6	2	1

VARIOUS PRODUCTS.

	1871.				1870.			
COCHINEAL—								
Honduras, black ..per lb.	2	3	3	5	2	8	3	10
,, silver .. ,,	2	4	2	8	2	6	3	0
,, pasty .. ,,	1	10	2	3	2	1	2	5
Mexican, black .... ,,	2	5	2	9	2	9	3	1
,, silver .... ,,	2	3	0	0	2	0	2	7
Teneriffe, black....	2	4	3	8	2	7	4	4
,, silver.... ,,	2	3	2	5	2	6	2	9
PUMICE STONE ..per ton	120	0	150	0	120	0	160	0
SOAP, Castile ....per cwt.	35	0	0	0	35	0	0	0
SPONGE, Turk. fin pkd pr lb.	12	0	10	0	12	0	16	0
Fair to good .. ,,	4	0	11	0	4	0	11	0
Ordinary...... ,,	1	0	3	6	1	0	3	6
Bahama........... ,,	0	6	2	0	0	6	2	6
TERRA JAPONICA—								
Gambier .. per cwt.	15	9	16	0	16	0	17	0
Free cubes ,,	18	6	21	0	18	0	20	0
Cutch ..... ,,	13	0	21	0	22	6	23	9
WOOD, Dye, Bar ..per ton	£3	15	£4	2/6	£4	0	0	0
Brazil .... ,,	0	0	0	0	0	0	0	0
Braziletto .... ,,	0	0	0	0	0	0	0	0
Cam .... ,,	18	0	24	0	17	0	£24	0
Fustic, Cuba...... ,,	7	10	8	10	7	10	8	10
Jamaica .... ,,	5	10	6	15	4	0	5	10
Savanilla........ ,,	0	0	0	0	0	0	0	0
Logwood, Campeachy ,,	9	10	10	0	9	10	10	0
Honduras ...... ,,	5	10	6	10	5	0	5	10
St. Domingo .... ,,	4	10	0	0	5	0	5	10
Jamaica .... ,,	4	10	4	17/6	4	5	4	10
Lima, first pile.... ,,	9	0	10	10	10	0	11	0
Red Sanders...... ,,	5	5	5	7/6	8	0	8	5
Sapan, Bimas, &c. ,,	6	0	8	10	7	0	9	0